THE HOME AND SCHOOL REFERENCE WORK

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VOLUME IX

THE HOME AND SCHOOL EDUCATION SOCIETY

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Suggestions To PARENTS & TEACHERS

In the matter of childhood education, Home and School—parents and teachers—are partners. The nature of this partnership, a sense of its reality and importance, increasing clearness of view as to its essentials are becoming more and more a part of our national consciousness, and there is an increasing desire on the part of all interested to make their united efforts more effective. This constitutes a forward step in evolution.

The hopes of a Nation are centered around its children. Years pass rapidly. Present parents and teachers will soon retire from the activities of life, their place being taken by present pupils. The most enduring part of the life's work of the former will be what they have helped the children to become. The influence thus exerted will work anew in the lives of others and constantly perpetuate itself. A realization on the part of parents and teachers that they are co-workers in this great work of human advancement should be an inspiration to greater effort.

What Is Education?

There are many definitions of education, but in its broadest sense education means preparation for life. It is such a balanced training of body, mind and moral faculties that the inherent powers of the child can come to full expression, even as the polish given the rough stones enables the imprisoned splendor of the diamond to come gleaming forth. Education has reference to the whole man—body, mind and heart. It aims to give vigor, activity, physical health and beauty to the body, not less than mental acumen to the intellect, or well-balanced moral faculties to the heart. The well-developed tree is not simply one well rooted, nor one with giant branches, nor yet one resplendent with rich foliage, but all of these features united. The truly educated man is not exclusively the physically perfect one, nor the mental gymnast, nor the reformer. We are to look for a combination of a healthful mind, healthful body, and a heart quick to respond to the higher things of life.

The Parents' Part

Though home and school are co-workers in the educational process, yet in the threefold division of the educational field as outlined, the parents' work is seen to be the more important. This is in ac-

cordance with the eternal decrees of nature, since children are "bone of their bone and flesh of their flesh," and the strongest bonds of earthly love unite their hearts. In the direction of mental instruction only, does the teacher's work surpass in importance that of the parents. But in every department of educational activity, the fact is every day becoming clearer that there is no hard and fast boundary line between the activities of home and school. At no point can we say here the activities of the one end and those of the other begin. By insensible gradations only, does the work of the one over-pass in importance, here and there, that of the other.

What Can Be More Important

If the sculptor can make in a few hours impressions on marble that distant eyes can see and admire, if the man of genius can create work in life that shall speak the triumph of mind a thousand years hence, then true men and women, alive to the duty and obligations of existence, can do even more. Working on human hearts and destinies, it is their privilege to do imperishable work, to build monuments that shall last forever. The home is the fountain of civilization. There laws are made; the things said there give bias to character far more than do sermons and lectures, newspapers and books. No other audiences are so susceptible and receptive as those gathered about the table and fireside; no other teachers have the duty and right to instruct that is freely granted to parents. The foundation of our national life is under their hands. They can make it send forth waters bitter or sweet, for the death or the healing of the people.

Children and Home

We are among those that believe in the potent influence of home. All through life, we are subjected to influences, coming from all conceivable sources. Surely, none are more important than those of early home life; the mind of the child is as wax to receive, but as granite to retain. It is well, therefore, to consider first of all suggestions as to home training. It is impossible to over-estimate its importance, and suggestions given with a sincere desire to help, make an appeal to the hearts of parents. The education received in the home is woven with the woof of childhood, and gives color to the whole texture of life. Comparatively few children can receive the full measure of a technical education, but all are graduates from some kind of a home. The simple lessons there received defy the actions of time. In late years memory affectionately dwells on the scenes of youth, disregarding all of later years.

The First Duty

The first duty of parents is to awaken to a realization of this fact. Into their hands is committed a great trust, how shall they discharge it? Let them reflect that however trivial some of the influences of home may seem, they give bent to character and remain active through life. Let them realize that the most potent influences brought to bear on life and character date from the home life of early years. It is then that the mind is open to impressions and ready to be kindled into flame by the first spark that flies into it. The first things dwell in memory. The first joy, the first failure, the first achievement, the first misadventure, paint the foreground of life.

We are not now concerned with the details of education as generally understood, but with the subtle influence of home. It is not a question of wealth or luxurious surroundings, for some homes from whence have issued men and women of truest worth have been of the plainest surroundings, which was all the parents could bestow, but they were invested with a nameless charm, the secret of which we fain would impart.

Make Home Pleasant

Children are entitled to a pleasant home, not necessarily rich or well fur-

nished, but one in which innocent joy and childish pleasures are in evidence. The richest legacy you can leave your child is the memory of such a home. Give him that, and on the strength of it he will make his way in the world; but if his recollection of home be unpleasant, the fortune you may leave him will not recompense him for the loss of the tenderness of heart that such a memory would have given him, so let there be a constant endeavor to make home pleasant. There should be home amusements, fireside pleasures, they may have to be very simple but they will impart just that sweet influence that in after years will tell in the battle of life.

Home Sunshine

It has been said that there is sure to be contentment in a home, in the windows of which are to be seen birds and flowers, and it may also be said that there will be the same conditions wherever there are pictures on the walls. The homes are certainly very few where such conditions cannot prevail. The pictures may be inexpensive, but they will exert their peculiar charm. Pictures are loopholes of escape to the soul leading to other scenes and spheres. They cheer us when lonely; they are histories and books that can be read without turning over the leaves. The influence of flowers is no less remarkable, even though such flowers be the common flowers of field and garden. At all seasons of the year flowers are welcome; they recall the joys and sorrows of life; even when advanced in years, simple flowers have the power to recall the scenes of childhood. You make no mistake in throwing around your children such simple home accessories. All that is needed is that they be the best you can do.

Music in the Home

Let there be music in the home; not kept to render company calls enjoyable, but music for the home itself. This can always be afforded; if nothing else there can be singing. Bring back to memory the songs of your childhood and teach them to your little ones. Mix them together to suit the varying moods of life that experience has brought to you. They will soothe and rest you, just as they will charm the children. Such home songs will not only serve to make home life pleasant, but their very memory will serve as a shield of defense in after years. Is not such true in your own experience? Is it not true that amid the cares of business, the perplexing problems of life, that sometimes a song of olden times breaks in on memory and, some way, your cares and problems slip from you? Throw such influences around your children also. You need not hesitate to do what you can afford in this direction.

Home Courtesies

Children should be trained to behave at home, as you would have them behave abroad. It is the home life that they act out when away. If this be rude, gruff and wanting in civility, they will be lacking in all that constitutes true refinement, and thus most painfully reflect on the home training when in the presence of strangers. In the actions of children, strangers can read a history of the home life. It tells of duty undone, of turmoil and strife, of fretful women and impatient men; or it speaks of a home of love and peace, where patience sits enthroned in the hearts of its members, and each is mindful of his or her duty towards the other.

Something is wrong in those homes where the little courtesies of speech are ignored in the everyday home life. When the family gather alone around the breakfast or dinner table, the same courtesy should prevail as if guests were present. Reproof, complaint, unpleasant discussion, and sarcasm, no less than moody silence, should be banished. Let the conversation be genial and suited to the little folks as far as possible. Interesting incidents of the day's experience may be mentioned at the evening meal, thus arousing the social element. If re-

sources fail, sometimes little extracts read from the evening or morning papers will kindle the conversation. Scolding is never allowable; reproof and criticism from parents must have their time and place, but should never intrude so far upon the social life of the family as to render the home uncomfortable.

The True Home

These are a few, only, of the suggestions that can be given on this most important part of our subject. The great lesson to be kept constantly in mind is that it is not things that make a home, but human beings. The children that may bless you are entitled to such impressions of childhood and home that, giving bent to character, will fit them for the battle of life, and this influence is separate and apart from more specific training. Such impressions and such influence are not conditioned on wealth. The poorest homes need not be lacking in this respect.

IN THE FIELD OF SEX REFORM

Teachers and parents recognize the difficulties confronting writers attempting suggestions in this field. All right-minded people will, however, agree to the following statements: The welfare of our country is inextricably bound up with that of our children; the welfare of our children is profoundly influenced by their knowledge of problems peculiar to this subject; consequently, no apology is needed for including this field in our mental survey as one suitable for our observation and one concerning which fruitful suggestions can be made. Certainly in no field is there more need of loving counsel.

Until very recently, it has been strangely neglected, yet it touches the very life of our nation. Fortunately, a change in thought is now noticeable. It is clearly seen that what nature has made of such vital importance cannot by social convention be made common or unclean. Parents see more clearly where their duties lie; teachers, also, are being urged to do what they can, within reasonable lines, to convey needed instruction. A number of states have already enacted laws that make it the duty of teachers to take up this work, in at least its broad, general lines. We have therefore prepared the following suggestions touching this delicate subject, and ask for a sympathetic consideration of the same. They are not as full as many might wish, but we feel that those with a heart to understand can profit by their consideration.

Education Relating to Sex-Problems

The time will come in the not distant future when educators of all classes—parents and teachers alike—will recall with astonishment that instruction in this vitally important matter was so utterly neglected. Here as elsewhere, ignorance is a curse; it has been attended by more wrecked lives—wrecked physically, mentally and morally—than those due to any other one cause. Here as elsewhere, knowledge is the greatest single preventative of such direful results. Knowledge makes its appeal to the physical, mental and moral nature, the three phases of our complex being. If any one of them be overlooked, its sane and right development neglected, to that extent real education that fits for life is defective. It is not necessary to discuss which division of our psychic nature is the most important; neither is it desirable to consider any other phase of this question than that which concerns our present life and welfare. It is certainly true that success in life—which is the rightful and possible heritage of all—is endangered, in fact rendered impossible of achievement, if either of these phases of our being is left without proper attention.

A Duty that Confronts Parents and Teachers

A field uncultivated, is speedily overrun with weeds; fruit trees unpruned, become unsightly shrubs and cease to

produce desirable fruit; animals deprived of the care of men, revert to their wild state. In an entirely analogous manner, this field of instruction—capable of yielding all manner of fruit for the betterment of mankind—neglected, becomes a garden of upas trees that poison all who partake. It is not a question whether the children will gain knowledge of these problems, but it is a question of what kind of instruction and how it will be attained. A little knowledge is often a dangerous thing, but, and more deplorable still, the little they may gain may be of a most vicious character, producing totally false views, and poisoning the very springs of life.

Children Entitled to Right Instruction

In all matters of education, it is acknowledged that whatever degree of instruction is given children, it should be to that extent correct and the best possible within reasonable bounds. All schools, for instance, cannot be equipped with extensive physical and chemical laboratories and voluminous libraries, but children are entitled to the aid of the best equipment that can be given, considering all sides of the problem present in each case.

In the matter of sex instruction, then, it being so vitally important, children are entitled to a candid explanation of at least the general outlines of the subject. They are entitled to have that instruction scientifically correct; presented in language that they can understand; imparted in such a manner that it will appeal to the very best of their nature and inspire in them a desire to so live that their physical health may be conserved, mental vigor increased, and invite a response to the highest things of life.

Results of Neglect

Remember, we are dealing with that part of our being that is subject to the sway of the strongest instincts of the race. We have decided that curiosity is the road to knowledge. We know for a certainty that childish curiosity concerning all matters in this field is intense, rouses to action early, and is most persistent. And this curiosity is just as innocent, just as pure, just as worthy of being satisfied (and far more essential that it be satisfied candidly, sanely and with measurable fullness) as curiosity concerning any mystery presented to the minds of children. And they will not be denied their quest. If their appeal for information to those to whom they instinctively turn—in the first instance their parents—be denied, there are plenty to impart misleading, debasing instructions that will at least tend to deplorable results.

Who Should Impart Needed Instructions?

There is but one answer to this question. Here, the coöperation of Home and School—parents and teachers—is plainly indicated. But the part devolving on the parents begins far earlier, remains more intimate and more influential than the teachers', and is in every way the more important. The state is beginning to recognize its duty in this matter, but from the very nature of things, the teachers' work is limited. Needed instruction is a duty that parents cannot relegate to others.

How Shall They Prepare for This Work of Instruction?

It is not necessary to show that parents, when they consider all these matters, recognize their duty in this respect and are at heart willing to do what they should. They need to prepare for the work in hand. The same is true of teachers in their more limited field. To fully set forth this preparatory work is beyond our purpose. It is ours to make suggestions only. The first step for them to take is to awaken to the duty that confronts them. They must form broad and comprehensive mental conceptions of the great field of sex. They will never more treat it in a jesting way if they once catch the vision of its importance. It runs through all of nature's

kingdoms. It is beautifully comprehensive. It is as worthy of study in the plant and floral world, in the very lowliest form of animal life as in the higher forms. When the great truth dawns upon parents that life comes only from life—no other origin being known to us—when they dimly comprehend the infinite variations in methods that nature employs to effect her purposes, beginning with the simple division of a cell in the lowest round of life, progressing with many a variation to mammalian life—then the whole question becomes, for them, invested with an almost reverent interest. They glimpse one increasing plan running through all the animated kingdom of nature.

Bothersome Questions

While yet very young, children begin to ask all sorts of puzzling questions. What shall you do? The child is too young for a full and candid reply; yet he is entitled to information, and you should beware of the temptation to tell him some one of the many polite lies generally given in reply. The next day, perhaps, or at least very soon, some one—not with any good purpose at heart, often in a debasing way—is going to volunteer an answer. That very minute your little one has lost confidence in you. Your words will never again have the weight of the old days, you have gained nothing in return, and all manner of harmful seeds may have been sown in the little one's mind.

A Better Plan

If you think the little one is really too young, or if you yourself are not prepared (in the sense that you have not considered how best to reply) you will begin by assuring him that "Mamma (or papa) is glad you came to her with this question; because you are now getting to be a big boy, you are growing up, you are no longer a baby, and mamma hopes you will always come to her with such questions. Never go to anyone else, certainly not to other little boys, because all such questions are to be talked over only between little children and their papa and mamma." You have now given him a suggestion of delicacy. While it is right to know about these matters, yet you (his mamma or papa) are the one to ask. This feeling you are to strengthen in all legitimate ways, but you will also add that you are going to tell him a beautiful story in a few days and he must wait until then. You can then set a time for the story to begin.

The Flower Story

Nearly all writers on these subjects recommend beginning your instruction with flowers. Even in the winter time, it is comparatively easy to get flowers to illustrate your story; at all other seasons of the year it is an easy matter. In your front yard, in the cornfield, the blossoming trees, the rose bush, you have your material at hand. It is not necessary to use technical language, leave that for other occasions. You can speak of the papa and mamma plants or flowers or parts.

You have now started on one of the most interesting of Mother Nature's stories. You can show him how in order that there can be baby plants, seeds must be formed. For this purpose, nature always requires pollen from the papa plant to be furnished the mamma plant or flower. Bees and other insects are sure to be working around the flowers. Show him how Mother Nature is ultilizing insects in this necessary work. A common lily is an excellent flower to use for the purpose of illustration. If corn has tasseled out, any corn field can be made to convey its lesson. It may be well to explain that nature arranges the papa and mamma parts in all sorts of different ways, sometimes growing on different trees or bushes, but in all cases pollen from the papa part is required by the mamma part before seed can be produced.

Now in all this, remember that the language to be used must be fitted to the needs of a child, and it must be so

imparted as to avoid a morbid dwelling on the subject. In a dim way, without openly mentioning it, you are laying the foundation in the little one's mind on which to build later a conception of parentage. The story constitutes the faint beginning of a nature sketch that is to be completed in details so as to give a fine and reverent outlook on life. These stories constitute the first series of lessons. You will impart other lessons later. When they are to be given depends on circumstances. It may be deemed wise to explain that when he is a little older you will tell him about baby oysters, fishes and animals. It may be best to give further lessons very soon.

Further Lessons

Whenever you think it wise you can continue the instructions. Always by way of review refresh his memory as to flowers. You can nearly always get hold of some shell oysters. The only advantage in getting the oysters is that they serve to impress what you have to say. You can explain that these little animals have also mamma and papa parts and since each oyster lives in its own home, a shell, these parts, just as in some flowers, grow in each single oyster. Fishes may be taken as the next step. The mamma fish lays numerous small eggs in little hollows in the sand or in similar places. The papa fish then swims over the eggs and like a big flower pours out other little bodies like pollen, much smaller than the manima eggs. These join with the eggs and develop into baby fishes.

Birds and Animals

Whether the child lives in the country or not, he is doubtless familiar with birds and birds' nests, eggs, little chickens and little animals, as kitties and puppies. He can be shown the eggs in the body of the hen dressed for the table, then eggs after they are laid, such as he has been in the habit of seeing, and from which, as he knows, young chickens are hatched. He may be told that all animals come from eggs, and that all eggs are formed in the body of the mother. It is only a step from this for the child to understand that in the case of all animals he is acquainted with, the dog and cat, horse and cow, the eggs remain in the body of the mother instead of hatching in a nest outside, as in the case of birds.

Parental Instinct

It must now be left to parental instinct of father or mother to take the remaining step. Here is the place for the father and mother to impress on the inquiring child the depth of love he should feel for his mother. He can be told of the pain and danger she underwent for his sake. This makes an appeal to the very best in his character, with no traces of morbidness or grossness. All this information can be so imparted as to increase the child's admiration and respect for human life and its relations, for cementing the family bonds and, finally, it can be impressed on him that all these questions are to be talked over only with papa or mamma, they are family affairs.

A Plain Talk to Parents

The foregoing are in the nature of suggestions only. It is left to you to enlarge upon them. In every way, this is better than the older plan of silence and leaving children to learn this story of life from others. The great majority of mature men and women will confess, with a sigh, that if only their fathers or mothers had told them this story it would have been greatly to their advantage. Do not hesitate to use this story, or a modification of it, with your children. You will preserve their confidence; you will safegauard the highest feelings of their nature; you will draw your children to you by a stronger bond. They will feel that you are indeed their parents.

Further Talks to Boys

A father's duty to his boy is not exhausted by this simple story of life. There is needed a candid talk on the duty of self control. The appeal is best made

to his instinctive desire to be manly, strong, virile, to be like papa. Young as he is, he knows that some men are weaklings; he is forming his ideals of what he is to be. It is not at all difficult for the father to strengthen this desire. The reason this has not been done generally is simply neglect on the part of the father. Taken up as he is with business cares, he lets it go. This is a wrong to the child; he is deserving of instruction so that he may be better equipped for life. Why neglect one of the most vital points of instruction?

Form of Instruction

Abundant means are at hand for the father to impress on the boy that his body is a wonderfully complicated machine. Just as he would not think of poking a pencil among the fine wheels and springs of his papa's watch, so he should do nothing to interfere with nature's wonderful machinery. He wants to grow to be a strong, healthy boy, a leader among the boys, and he needs all the energy his little body can generate for that purpose. In all this, be quick to impress on him that it constitutes a sort of secret between you and him; you are always willing to explain matters to him, but he must not talk with other boys about them. You can thus fortify him in advance through his conception of manly behavior and ambitions, the confidence that exists between you and him, and thus save him from many temptations and possibly deplorable results.

As Puberty Approaches

This is one of the critical periods of life. It should be met just as other problems in this field. It is not, however, at all difficult. It has been neglected. Mothers, at this stage, have the more important duty of instructing their daughters, who need to be told of the stages of development through which they are passing. The problems confronting parents are twofold; imparting instruction that will conduce to health, and also encouraging the right mental attitude that their children should take. At this age, the school can begin its cooperative work. Strengthen a taste for those things that are of the utmost concern to life, health, and happiness; those things that ought to be the purest, sweetest, and truest; that knowledge which in itself, rightly given, will do the utmost good, and will never do harm. Much of this instruction has been entirely omitted from the education of our public schools,—has been entirely overlooked by parents and teachers,—and has been left to the ignorant and wrong-minded. It is far better that necessary information be received from chosen friends.

DEVELOPING CHARACTER

The happy influences of home, special instructions in the neglected field, by no means sum up the duty of parents and teachers, by no means exhaust the suggestions that can profitably be made touching the welfare of children. There is no course of instruction in schools that can be given covering the field in view, yet, in one way or another, it is the end sought in all education. What shall parents and teachers do to enable boys and girls to become men and women of force and character? It is not sufficient to help them develop mental vigor and strength, nor yet to become strong in body. How shall they help them to become strong in character? No real and lasting success can be won unless children, in some way, become such men and women. Indirect instructions can be given, and parents and teachers can be of great assistance. It is the listening ear, the sympathetic heart, the word fitly spoken that is helpful; it is the subtle power of influence that is urged.

The Ideals of Youth

You cannot be too solicitous to discover what ideals your children have formed. Lofty ideals attract and hold;

low and sordid ones draw down. What are the ideals of your boy or girl? It is yours to guide this wonderful power, and see that it is always a worthy one. Teach him to form uplifting ideals and have faith that he can achieve them. Latent in every human being are energies that, if unfolded, intensified, and given proper direction, will develop the ideal. It would not frame itself in thought unless such were the case. An ideal is a prophecy of what you can become.

A Great Privilege

Often parents and teachers fail to realize that it is their privilege to help those before whose mental vision some lofty purpose is unveiling to clearness of thought concerning the same, to mentally advance them to that resolution forming frame of mind which says, "I will," and, so saying, venture forth as athletes into the arena to win the crown of success. All worthy aspirations are to be encouraged. A pebble placed in a streamlet at its source may turn the course of a river. A life shaping its course to a lofty ideal may be turned from its purpose by careless words of discouragement spoken by those who have the guidance of youth.

Study Your Children

One of the greatest steps in advance taken by the new education is the vocational guidance of youth. Parents and teachers unite in a study of the natural aptitude of children so as to help the boy "find himself." This should appeal to all true parents. They should watch every indication of ability or genius in any direction, and encourage and help its development. Let them think well before they discourage it. Children are inclined to follow the advice of parents and teachers, even when they long to follow the light that unseen by others beckons them. This course may result in weak, ineffective men and women, when if the boy or girl had followed the promptings of the heart, they would have been strong and forceful. Many parents have been amazed in after years by the success that rewarded the efforts of children whom they tried to force into different paths. Unless parents make a careful study of the natural bent of their children they are more apt to be mistaken in the career they plan for their boy, than he would have been had he followed the course that appealed to him.

Why Not Help Your Boy to Follow His Ideal

You should express faith in your boy's ability, and if satisfied that his ideal is worthy, uplifting, something that will develop manhood, show him that you have faith that he can accomplish it. How can you expect your boy to achieve some great purpose if you let him think that you regard him as commonplace, that his ideal is something beyond his reach, something he cannot hope to achieve? If you cannot see possibilities in your own boy, if you have no faith in him, how can you expect him to have faith in himself? How is success possible without faith? If you discourage him, he is apt to conclude that he is mistaken, that his ambition to do something and to be somebody in the world is a mockery. His opinion will be largely a reflection of your own. His ambition dies down, his ideal fades, his incentive to action is gone. There is everything in holding the right estimate of your children, or pupils, or friends. Give them the perpetual tonic of your good will, the advantage of a constant mental suggestion that you believe in them. The way you hold them in your estimation, the manner in which you regard them will have a powerful influence upon their lives.

Taking An Interest In Your Boy

It is impossible to over-estimate the importance of taking a genuine, heartfelt interest in the apparently dull or worthless boy. Show such a boy that you believe in him and have confidence in his ability to do good work in the world; let him see that you are anxious to help him

find his place; willing to do everything you can to encourage him to develop himself. You will be astonished to see how quickly he will respond to the interest you take in him. His ambition will be aroused, his interest warmed, his sense of honor awakened. He will endeavor not to disappoint you, he will have a new stimulus to find himself, and he will do his best.

Help Your Boy to the Right Choice

Success or failure is mainly a question of getting into the right path. Nothing succeeds like success. If a youth is where his ambition is stifled; where his longings find no outlet; if his occupation does not give him a chance for self-expression; if he does not feel himself growing, he is in the wrong place. Help him to set himself right. Help him to get into an atmosphere which is normal to him, and see how quickly he will transform. As an acorn that has been preserved for years, when put into the earth immediately responds to the forces of sun and rain and soil, and begins to unfold the oak that has been concealed in it, so the boy that has been out of place and apparently good-for-nothing, when assigned a place for which his faculties fit him, begins at once to unfold the man in him that would, perhaps, have remained latent amid uncongenial environment.

Where Your Power Lies

It is in love alone that your power to help your boy lies. Anything else is weakness, worse than useless. As well might you expect a delicate, tropical flower to expand in pleasing bloom in the hard soil and frosty atmosphere of an uncongenial region, as to expect a boy to unfold his hope, to lay bare his ambition to fill a high place in life and to develop the best that is in him, if you chill his heart with harsh treatment and severe, unjust criticism, belittling comparisons. The sun accomplishes miracles in the plant world, while the frost nips and destroys. Love is the sun of the human world that draws out and encourages the aspirations of youth; harshness is the nipping frost that destroys high resolves.

Let us say to all parents, to fathers especially, that if you love the boy or girl that has played around your house, whose life is unfolding before you, and desire to see them develop into strong and forceful lives, your love, sympathy and encouragement must be showered upon them. It may not be yours to give them money, perhaps they will have to share with you hardship from which you would gladly shield them, but one thing you can give them, that is loving counsel and words of cheer. As you value their future happiness, bid them aspire to higher things. Help them to a worthy ideal and encourage them to pursue it through all manner of trials.

Present Day Prospects

There never was a time in the world's history when high success in any profession or calling demanded harder or more earnest labor than now. It is impossible to succeed in a hurry. Men can no longer go at a single leap into eminent positions. As those articles are most highly prized, to attain which requires the greatest amount of labor, so the road that leads to success is long and rugged. To begin at the foot of the hill and slowly work to the top seems a very discouraging process, and here it is that thousands of young men and women have made shipwreck of their lives. There is no royal road to success. It lies through fields of earnest, patient labor, through troubles and discouragements. It calls on the young man to put forth energy and determination. But it promises richer rewards than ever before.

Elements of Success

In a general way, all thoughtful men and women recognize there are certain traits of character that must be cultivated if success is to be gained. It is the duty of Home and School alike to assist in the formation of such traits. Formal instructions cannot be given, but occa-

sions for impressing the lesson, for imparting the suggestion that sets the mind forward in the right direction are constantly at hand. What is wanted is not one-sided development, but the rounded character of the successful man, honored and respected by all. Fathers and mothers do not realize what a great help they can be to their children in this matter. Impress on them that all that stands for real success in life can be won only as right traits of character are practiced. Be ready to impart needed counsel in this matter.

Forming a Definite Plan

There is no hap-hazard work in the universe. Everything follows order, system, definite plan. Every blade of grass, every flower, every tree, every natural thing has a program, a scientific plan which works with certainty. But often people seem to think there is a great deal in luck, in chance, and so they drift. Many of them spend their whole lives in drifting, following the lines of least resistance, doing this thing today, tomorrow something else, perhaps throwing away the experience of years in one line, going into something that has no bearing upon the habits and facility they had acquired in doing the last thing,—always working to a disadvantage, having to start anew every little while, building up new experiences and new habits.

It takes a long time to become rooted in a permanent business, to get anchored solidly in a vocation. It is the worst kind of extravagance to throw away your experience, that is your capital, worth far more to you than money. No life can be very successful that does not have a strong, steady, persistent purpose running through it. There must be an aim, and all one's energies be applied to carry it out,—broadening, deepening, widening and enlarging life along the line of the purpose. Fragmentary, piecemeal work never amounts to much.

Perseverance

It has been said that successful men owe more to their perseverance than to their natural powers, their friends, or the favorable circumstances around them. Genius is not as potent as labor, great powers will give place to great industry. Talents are desirable, but perseverance is more so. It will make mental powers, or at least strengthen those already made. For one who resolutely takes up the work of life and perseveringly continues, it is possible to reach almost any height to which one aspires. History shows that wonders may be accomplished by resolute perseverance and patient toil. How many there are that, thinking of the immense amount of work lying between them and the object of their desires, are almost ready to give up in despair! But when they view the work in mass, they forget that there is time enough, if only rightly improved, to suffice for each effort.

One step after another, perseveringly continued, will enable you to arrive at your journey's end, however long it may be. It is only when you come to reckon up the total number of steps that you are ready to give up. Reflect that you are not required to take them all at once, but that there is an allotted time for each step. In viewing any work that you may have marked out in life, remember that the regular daily portions, performed quietly and systematically, day after day, will enable you to achieve almost any desired purpose. When we reflect on the wonderful results that perseverance has accomplished, we conclude that the man who wills, resolves, and perseveres can do almost anything.

Decision

There can be no success in life without decision of character. Even brains are secondary in importance to will. The intellect is but half of a man; the will is the driving wheel, the spring of motive power. A vacillating man, no matter what his abilities, is invariably pushed aside in the race of life by one of determined will. It is he who resolves to succeed, and at every fresh rebuff begins resolutely again that reaches the goal. The shores of fortune are covered

with the stranded wrecks of men of brilliant abilities, but they lacked courage, faith, and decision, and hence perished in sight of more resolute, but less capable adventurers that succeeded in making port.

Hundreds of men go to their graves in obscurity because they lacked the pluck to make the first effort, and who had they only resolved to begin, would have astonished the world by their achievements and successes. It is a grand thing to develop life in accordance with a single plan, to feel that there is a wholeness, a completeness about it, to realize that every effort has counted in broadening and deepening our life-purpose, one great work. It is satisfactory for a man to feel the sense of power that comes from knowing that he is master of something; that he is a complete man in his line; that there is nothing superficial in his knowledge pertaining to his business; that he is rich in experience in some one line, so that he knows something profoundly, broadly, minutely.

How Leaders Are Made

If you have acquired the habit of vacillation, of indecision, of undue hesitation, you will never be a leader. Such actions do not characterize leaders; whatever else they do leaders go ahead. If they make mistakes, they rectify them; if they fall down, they get up and start again. By acting, by pushing ahead, they may make a few mistakes, but they will get on faster than one that is so timid that he does not even make a start. Hesitating characters generally do not succeed: they are nearly always no-bodies,—just trailers. The leader must be aggressive, he must dare to undertake. But remember the ideal leader while daring to undertake is also cautious and considerate. He does not undertake blindly and in ignorance of what lies before him. Parents, give the boy an education, counsel and advice, but then bid him be brave and make a start at something. Let him not be swerved from his path because there are difficulties in the way. His ideal is not worthy unless it does present difficulties He must make the start.

Self-Confidence

Every boy should be made to feel that if he would get through the world usefully and happily he must rely mainly upon himself and his own independent energies. Young men should never hear any language but this: "You have your own way to make, and it depends upon your exertion whether you succeed or not. Outside help is apt to be a curse. It handicaps efforts, stifles aspirations, shuts the door upon emulation, turns the key upon energy. Self-reliance is more than a passive trust in one's own powers. It shows itself in an active manner, it demonstrates itself in work. It is not ashamed of its pretentions, but invites inspection and asks recognition. Because there is danger of invoicing yourself above your real value, it does not follow that you should underrate your worth. An excess of modesty is about as bad as an excess of pride. It is, really, an excess of pride in another form.

The great mass of men have not time to examine the merits of others. They are busy about their own affairs, which claim all their attention. They cannot go about hunting modest worth in every nook and corner. Those who would secure their good opinion must come forward with their claims, and at least show their own confidence by backing them with vigorous assertions.

Concentration

The highest ability accomplishes but little if scattered on many objects; on the other hand, if one has but little skill, but concentrates upon the thing he attempts, he may achieve miracles. Momentum in physics, if properly directed, will drive a tallow candle through an inch board. Just so oneness of aim and directing the energies to a single pursuit, while all others are waived, will enable the weakling to make his mark where he strikes. The general that scatters his soldiers about the country insures de-

feat; so does he whose attention is so diffused through innumerable channels that it cannot gather in force at any one point.

The human mind, in short, resembles a burning-glass, whose rays are intense only as they are concentrated. As the glass burns only when its rays are converged to a focal point, so the former illumines the world of science, literature, or business, only when it is directed to a solitary object. What is more powerless than the scattered clouds of steam as they rise to the sky? They are as impotent as the dew-drop that falls nightly upon the earth; but concentrated and condensed in a steam boiler, they are able to cut through solid rock, to hurl mountains into the sea, and to bring the furthest ends of the earth to our doors. Distraction of pursuits is the rock upon which most unsuccessful persons split in early life.

Energy

Energy of will, self-originating force, is the soul of every great character. Where it is, there is life; where it is not, there is faintness, helplessness, and despondency. There is a proverb which says that, "The strong man and the waterfall channel their own path." The energetic leader of noble spirit not only wins a way for himself, but carries others with him. His very act has a personal significance, indicating vigor, independence, and self-reliance; and unconsciously commands respect, admiration, and homage. Such intrepidity is the attribute of all great leaders. The game of life is won less by brilliant strokes than by energetic, yet cautious, play. Energy of character has always a power to incite energy in others.

The zealous, energetic man unconsciously carries others with him. His example is contagious and compels imitation. He exercises a sort of electric power that sends a thrill through every fiber, flows into the nature of those about him and enables them to throw out sparks of power. The earnest men are so few in the world that their very earnestness becomes at once the badge of their nobility; and as the men in a crowd instinctively make room for one who seems to force his way through, so mankind, everywhere, open their ranks to one who rushes valiantly toward some object lying beyond them.

Paying the Price

These are a few of the more active traits of character that make for success in life. Parents and teachers alike should be anxious to strengthen them by all sorts of quiet, helpful suggestions, by words of counsel when occasion offers. Let the child know that if he wishes success he must expect to pay its price. It cannot be won by feeble, half-way efforts, neither is it to be acquired because sought in a dozen different directions. It demands that he brings to his chosen profession or calling energy,. industry, and above all that singleness of purpose that is willing to devote the energies of a lifetime to its accomplishment.

In choosing a career let him remember his vocation is to be a life-school, intended to call out the man, not something whereby he is simply to get his bread and butter, or win a fortune. That is a small part of his vocation, a mere incident in life. The development of the man is everything. Encourage him to choose a vocation that will require the exercise of his strongest qualities, not of his weakest. Let him choose that which will call out his individuality, his highest self, his originality; that will make him self-reliant and manly, and will give him a dignified, not a questionable, standing in the community. Teach him that the purpose that he carries into his vocation ennobles it. Whatever career he undertakes has its higher and lower planes of purpose. The higher planes, only, tend to real, enduring, lasting success. It is yours to help him choose not only his vocation, but those higher aspects of it that lead to true success.

Moral Faculties

As man possesses a moral nature, it of course, must have adequate attention, or to that extent education is defective. It needs only to mention these traits of character for all parents and teachers to acknowledge at once their importance, and they are ready to strengthen the same by all suitable suggestions. This is not a matter of creed, but of life and action. Children need the inspiration of example and counsel. Wrong ideals allowed to form in the mind are apt to result in standards of action that will defeat all efforts for success. In this age of the world, no enduring success is possible unless the actions are governed by those broad general principles of right and duty. In every way possible such ideals are to be encouraged.

A Wider Outlook

There is, however, a wider, a higher, a happier outlook on life and our relation to it, which is becoming more and more widely spread each passing year. Its potential effects for good are so weighty that all that have to do with the training of youth should endeavor to instill its main principles into their minds. For youth to rightly grasp it, is to secure an asset worth more than education, since it transmutes into action the very best that education has to give. This field is the formation of correct ideas of man's own inherent worth and dignity. It is a realization that within man himself is a mighty power. It is the power of the human mind as displayed in cherished thought.

The Power of Thought

Thought is the most powerful thing in the world, for it subjects all other forces to its control. In some way it exerts an influence far beyond the physical body, for the thoughts of one person can influence another. We may not understand just how this is, but the fact remains. All mental superiority originates in habits of thinking. Thought is the mind playing on the brain and exciting an influence that goes forth on its mysterious mission. Therefore in meditation, thought, reflection, you are employing one of the strongest agents to further your own success. It has been stated that nothing within the realm of the possible can withstand the current of well directed thought. Hence it is that the mind has great influences over the body. More than that can be said: it has a great influence over circumstances. This lesson should be taught children so that they may be able to guard the health of the body and help forward their own success.

The Power of the Mind Over the Body

Instances innumerable have been gathered to show the strength and reality of this influence. Spells of sickness have originated and been discarded under the influence of nothing except an idea implanted in the mind. Now, no success is possible without health. Teach children to expel images of disease and all discordant emotions, like hatred, malice, revenge, envy, and sensuality, as they would banish a temptation to do evil. Teach them that healthy thoughts are as essential to healthy bodies as pure thoughts to a clean life. Teach them to cultivate a strong will power, and to brace themselves against life's enemies in every possible way.

Teach the sick to have hope, confidence, and cheer. Our thoughts and imaginations are the only real limits to our possibilities. The mind is the natural protector of the body. Disease and health, like circumstances, are rooted in thought. Sickly thoughts will express themselves through a sickly body. Thoughts of fear have been known to kill a man as speedily as a bullet, and they are continually killing thousands of people just as surely though less rapidly. The people who live in fear of disease are the people who get it. Anxiety quickly demoralizes the whole body, and lays it open to the entrance of disease; while impure thoughts, even if not phys-

ically indulged, will soon shatter the nervous system.

Power of the Mind to Influence Circumstances

It is of equal, if not greater, importance that children should be instructed in regard to the power of mind to influence circumstances. No one ever yet failed in life until he had acknowledged himself defeated in his thoughts. The rule works both ways. When one is down and out, the mind is filled with gloomy thoughts of failure, defeat, weakness, and helplessness. In this case, circumstances are controlling thoughts. But cheerful thoughts, hopeful, courageous, success-inspiring thoughts may be made to control largely circumstances. Teach children, then, to avoid fear-of-failure thoughts. A mind fortified in this respect is far better equipped to wage the battles of life, than one with a splendid education but given to harboring gloomy, discouraged, failure-working thoughts. Make no mistake, the attitude of mind which children take in this matter exerts a powerful influence on their after life.

Man is buffeted by circumstances so long as he believes himself to be the creature of outside conditions, but when he realizes that he is a creative power, and that he may command the hidden soil and seeds of his being out of which circumstances grow, he then becomes the rightful master of himself. Act is the blossom of thought, and joy and suffering are its fruits. Every man is where he is by the law of his being; the thoughts which he has built into his character have brought him there. The world is a kaleidoscope, and the varying combinations of colors that it presents to you at every succeeding moment are the exquisitely adjusted pictures of your ever-moving thoughts.

Thoughts To Be Avoided

Of all base passions, fear is most accursed. It was worshipped as a god by the ancients, but to-day we know it to be a great enemy of the human race; it renders the body susceptible to discord or disease in proportion to its intensity. Fear and anxiety destroy the red blood corpuscles; and if they are reduced below a certain proportion, disease and death ensue. Every one knows the depressing influence of fear upon patients with certain diseases, especially those of the heart. The action of this organ is weakened, and its vitality lowered by concentrating one's mind upon it with a sense of fear.

He that has conquered doubt and fear has conquered failure, for his thought is allied with power and all difficulties are bravely met and wisely overcome. His purposes are seasonably planted, and they bloom and bring forth fruit that does not fall prematurely to the ground. Thought allied fearlessly to purpose becomes creative force; he who knows this becomes a man of strength, a conscious and intelligent wielder of mental powers.

Never say you are weak if you wish to be strong, or fatigued if you would be at your best. Such discordant pictures of the mind have an influence on the body. Sick thoughts and discordant moods are the natural atmosphere of disease, and crime is engendered and thrives in the miasma of the mind. Instead of bracing ourselves against disease by expelling discordant thoughts, and barring mental avenue of approach as we would guard our homes against thieves or contagion, we render ourselves susceptible to disease by watching for, dwelling upon, and picturing in the mind, the physical features of the malady. Thus power to resist disease is lessened. Instead of fighting the many ills that flesh is heir to, we put ourselves in sympathy with them and invite their approach by our mental attitude regarding them.

Expect the Best

All practical men know that it is a most short-sighted policy to allow oneself to think that failure in plans is probable, since that kills the power to do.

Children, then, should be taught to expect success and happiness. If you would help them to realize the most out of life, instill in their minds that they were made to be happy, that they are happiness-machines quite as much as work-machines. Teach them that no matter what their environment, whether rich or poor, free or enslaved by circumstances, no one has power to rob them of real happiness.

They should expect delightful things to come to them and pleasant things to happen. There is happiness and power in hopeful expectance. If they indulge in building air-castles, help them to form beautiful, helpful, inspiring, uplifting ones. Instruct them not to mind the things that are past. They are not to waste time over lost opportunities, lost property or even lost health. They are gone, let them turn their energies to the living present. Let them expect, plan, and work for the success to which they are entitled.

The Drawing Power of Expectant Hope

Let children be taught that such is the drawing power of expectant hope that they can be a magnet to draw all that is beautiful, pleasant and desirable out of to-day. Doing this, they will get more out of to-morrow, and more out of next day. But if they waste time and energy in regretting the past, squandering their vitality in trying to re-live badly spent yesterdays, or in trying to live to-morrow before it comes, they only cripple their power to live properly the day that is before them. Let their motto be to cut out the past and not bother with to-morrow until it comes with its problems; extracting from to-day every possibility. All this does not imply a foolish neglect of possible happenings in the future. It simply means to put their efforts in to-day's work, hoping, planning and expecting success.

They are never to allow themselves to think that fate is against them or that destiny has decided their future. They are to ever think that they are blest, that good fortune is in the ascendant; and above all to feel that an abundance of all that is good is to be theirs. They are to back this up with productive, creative thoughts. They should be told that they destroy their magnetic attraction of abundance by thinking of limitation, poverty and failure. They are to think happy, creative, positive thoughts, and then they may expect a harvest of good things, if they really do the best that is in them.

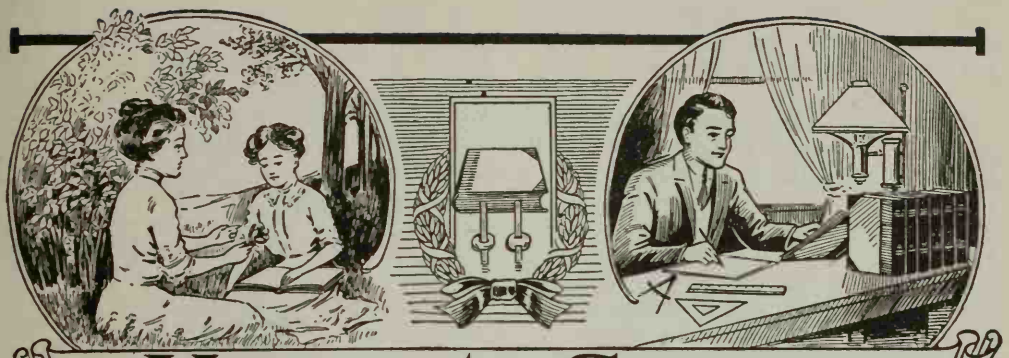
And So To All

"You will be what you will to be;
Let failure find its false content
In that poor word, 'environment,'
But spirit scorns it, and is free.

"It masters time, it conquers space;
It cows that boastful trickster, Chance,
And bids the tyrant Circumstance
Uncrown, and fill a servant's place.

"The human will, that force unseen,
The offspring of a deathless Soul,
Can hew a way to any goal,
Though walls of granite intervene.

"Be not impatient in delay,
But wait as one who understands;
When spirit rises and commands,
The gods are ready to obey."



HOW to STUDY

Independent thinking has given us the present and will forever continue to make tomorrow better than today. The right to think is inalienable, or man is a machine; thought is life or the human soul is a thing.—*Patrick.*

INTRODUCTION

Education begins at birth and continues through life. For a brief period we attend school, then by force of circumstances most of us are compelled to seek and follow some vocation. Only a very few go on to the college and the university.

We consider those who are privileged to attend college more fortunate than those whose school days end when they leave the public school. Such a conclusion, however, should not be hastily drawn, nor made too general. While a college education is of great value and should be secured whenever possible, those who are deprived of it should by no means despair. By means of the assistance it is able to render it does in a few years what one can accomplish by oneself in a longer time.

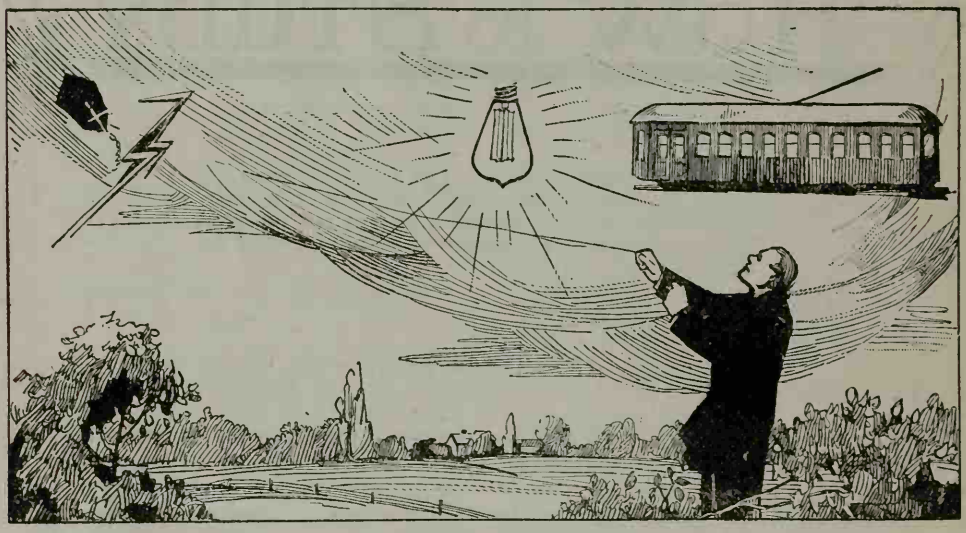
As we have already said, the opportunity to obtain a liberal education is open to every man and woman who is willing to make the effort. Moreover, knowledge and discipline acquired by one's unaided effort are more firmly fixed in the mind than when gained through the assistance of others.

The self-educated man and woman develop a power of self-reliance and practical application that the college-trained man seldom possesses at the completion of his course. Many of the men at the head of great railways, manufactories and commercial institutions have risen from the lowest position in the corporations of which they are now the leaders.

What others have done you can do. They not only worked at their daily task; they observed, studied, thought, and by so doing made themselves more efficient day by day. You are endowed with the same powers and have even better opportunities than they had, because opportu-

nities for self-education are better now than ever before. The purpose of the following pages is to assist you in making the most of these opportunities.

Definition. We ordinarily think of study as the application of the mind to books for the purpose of gaining knowledge. However, in its broadest sense, study means far more than this. It is the application of the mind to a subject for the purpose of mentally assimilating that subject and making it contribute its share in enriching one's mental equipment.



FRANKLIN BRINGING ELECTRICITY FROM THE CLOUD

Study brings every power of the mind and one's entire mental equipment to bear upon the subject under investigation.

SUGGESTIONS

1. Bear in mind that your education consists of two parts: what you learn by yourself and what you learn from others. What you learn yourself you learn by direct observation and experience; most of what you learn from others you obtain from books. Observation and reading, therefore, should go hand in hand.

2. Be alert. The world is alive, and he who would gain the most from it must be alive to his opportunities.

3. Be energetic. When you study, put your whole soul into it. By so doing, you will obtain a much better grasp of the subject and at the same time acquire the ability to accomplish a large amount of work in a short time.

Mental laziness is more common than the physical sort, but it is not so easily discerned. You should constantly guard against mental lethargy.

4. Study to understand every subject you investigate. Bring to bear upon it all your powers of observation and all of your stock of knowledge that is at all related to it. Learn all you can from others by studying books upon the subject.

5. Remember what you learn. There are two methods of memorizing, known as the mechanical and the logical.

By the first we memorize the words of others by the sheer force of memory, as when we learn a literary selection for the purpose of reciting it, or a rule in arithmetic or grammar, because we are told to do so.

By the second we remember subjects because we understood them at the time they were learned. In other words, we have properly related the subject to the

knowledge we already possessed and can consequently recall it when needed.

The first method is used largely with children between the ages of 8 and 12 because children memorize more readily during this period than at any other time.

But as we pass from childhood to manhood and womanhood, we should pass from the mechanical to the logical stage of memory. Not that we should neglect the mechanical stage entirely, but that we should rely chiefly upon the logical stage. A proper method of study will make this transition natural.

leaders. Newton, who was able to relate the fall of an apple to the law which holds the heavenly bodies in their orbits, said that he was able to discover what others had failed to observe because he could hold his attention upon a subject longer than they could.

It is the thinker who is able to discover the underlying principles of what he studies and to apply them to the advancement of science and the arts. When we see the electric car or the arc light, we seldom think of Franklin and his kite, but from his simple experiment he was

WATT WATCHING THE TEAKETTLE

6. Give special attention to underlying principles. This is essential to the understanding of your subject and to the development of a logical memory. If you understand the principles of a subject or science you will be able to make your own rules as you need them, and such rules will be of much greater value than those you memorize from books without fully comprehending their meaning.

7. Think as you study. Thinking is discovering the relations between facts and principles and applying your knowledge to the affairs of life.

Keen observation and clear thinking are essential to progress. The thinkers have been and ever will be the world's

able to discover the principles which underlie the numberless applications of electricity to the arts.

Who but a thinker of the most practical sort would connect the rattling lid of a tea kettle as the steam lifts it, with the ponderous locomotive rushing over the rails at 60 miles an hour? Yet James Watt saw in the steam imprisoned within the kettle the power which runs the locomotive, and which he harnessed in the steam engine, thereby revolutionizing the manufacturing and transportation industries of the world.

8. Be systematic. Every subject should be pursued in the order of the logical sequence of its divisions. When studied

after this manner, it unfolds naturally and is readily understood. The many plans and outlines in this volume of THE HOME AND SCHOOL REFERENCE WORK, as well as the subdivisions into which all the long articles in the body of the work are divided, will be found especially helpful in enabling you to form a systematic plan of study.

9. Make a wise use of reference books. In your study you will come across many words whose meaning you do not understand. From the beginning, form the dictionary habit. Have your dictionary at hand and whenever you find a word whose meaning is not clear, stop and then and there look it up. The meaning of that word may furnish the key to the situation.

You should also have at hand a concise but comprehensive work of ready reference. Such a work should be authentic and up-to-date. In it you will find articles treating upon many collateral subjects bearing upon the subject you are pursuing. The reading of these articles will broaden and strengthen your knowledge of the subject in hand.

THE HOME AND SCHOOL REFERENCE WORK is designed to aid you in your home study and you will find it an invaluable assistant.

USE OF KNOWLEDGE

A man may be learned, but not useful; he may be educated, but not wise.

Wisdom includes knowledge and ability to use it. Test the knowledge you think you possess by this standard. That portion which will not stand this test needs further study. The following suggestion will be of practical value in testing your knowledge.

1. In the pursuit of any new subject, bring to bear upon it all the knowledge you have of related subjects. This will help to clarify your thought and strengthen your grasp on the subjects thus used.

2. Apply your knowledge to your daily work. By this means you will discover great possibilities in subjects which they may have considered of but little value.

3. Frequently take a glance backward to see where you have made mistakes and lost opportunities, and to see what you have gained. Make this review a rigid self-examination, not for discouragement but for profit and encouragement.

4. Always have before you a goal you are striving to reach, and apply your powers and knowledge to that end.

CULTURE

Consider what you have in the smallest chosen library. A company of wisest and wittiest men that could be picked out of all civilized countries in a thousand years have set in best order the results of their learning and wisdom.—*Emerson.*

The reaction of education upon the individual is, in the last analysis, the strongest argument in favor of education. To build a character

"Erect and constant, which nor any shock
Of loosened elements, nor the forceful sea
Of flowing or of ebbing fates can stir
From its deep bases in the living rock
Of ancient manhood's sweet security,"

is the supreme work of life, and this can be accomplished only by the fullest development of all our powers. Again, the man and woman with a well-furnished mind has within himself or herself never-failing resources of pleasure and entertainment.

Many a young man, who, upon leaving home, is compelled by loneliness to seek companionship, finds it among evil associates. With the formation of evil associates his downward career begins, and instead of the brilliant success he might have achieved at middle age, he looks back upon misspent years and lost opportunities. How different the career of the young man who has formed the study habit and seeks companionship in books. Within himself are those resources of entertainment which enable him to avoid undesirable associates and to resist many a temptation.

A well-disciplined mind well stored with useful knowledge is a far greater

asset than material wealth, for it is a power by which its possessor may acquire both wealth and an honorable position. And when in declining years we care less for the material things of life, these inner lights burn all the more brightly.

"For age is opportunity no less
Than youth itself, though in another dress,
And as the evening twilight fades away
The sky is filled with stars invisible by day."

speaker who, by the use of simple language, makes himself understood, and we read with delight those authors who couch great truths in simple phrases and bring them down to the plane of our daily life. The scholar is always the learner. Each new truth understood, each new principle discovered, gives him a broader vision and he sees other principles to be discovered. Newton, who discovered the law that holds the uni-

NEWTON WATCHING THE APPLE FALL

The chief characteristics of scholarship are simplicity and humility. The most scholarly men and women are they who can seize upon the great underlying principles of life, science, art and literature and clothe them in such simple language that everyone can read and understand. We listen with pleasure to the

verse in place, said that he seemed like a schoolboy walking upon the shore while the great ocean of truth lay all unexplored before him. To the scholar spare moments are precious, and he rarely allows them to go to waste. He realizes that their loss often means the loss of opportunity.

It is with deepest regret that I recall in my manhood the opportunities which I neglected in my youth. Through every part of my literary career I have felt pinched and hampered by my own ignorance, and I would at this moment give half the reputation I have had the good fortune to acquire, if by so doing I could rest the remaining part on a sound foundation of learning and science.—*Sir Walter Scott.*

ARITHMETIC

Arithmetic treats of the relation and properties of numbers and all have occasion to make daily applications of its principles. A very real problem confronting teachers is how best to develop the innate idea of number in the minds of children. In this, as in other school branches, modern ideas are supplanting older methods. It is no longer sufficient to impress on the memory of children the appearances and names of certain marks, or combination of marks, knowing them henceforth as figures. We now make appeal to other senses as well.

Prof. L. W. Colwell, Principal of the Grover Cleveland School, Chicago, an educator of experience and high professional standing, has worked out a new system based on the play instinct of children—their inborn love for constructive work with hands and fingers. Use is made of that method.

We have journeyed so far from childhood ways of thinking that we forget what seems to us self-evident, clear, and natural in the primary operations of arithmetic are dark mysteries to little children. We must endeavor to teach in nature's way. The child must come to know that figures are but convenient symbols for the idea of number that he has succeeded in mentally visualizing by the aid of such exercises as here given. The materials suggested for use are very simple. Colored wooden beads, cubes, cylinders, etc., of kindergarten gifts, pasteboard squares, tooth-picks, shoe pegs or other sticks of equal length, and paper for folding and cutting.

PURPOSES OF FIRST GRADE WORK.

1. To learn to count by ones, to count by twos, threes, fours and sixes to twelve; by fives to ten; and by tens to one hundred.

2. To develop manipulative skill with fingers, scissors, pencil, chalk, and ruler.

3. To train the judgment as to size and form.
4. To familiarize with direction, location, and proportion.
5. To enlarge the mind to see relations.
6. To know numbers to ten independently of and previous to the figures that express them.
7. To recognize, name, and use of the figures.
8. To acquire facility in making figures according to approved forms.
9. To read numbers to one hundred.

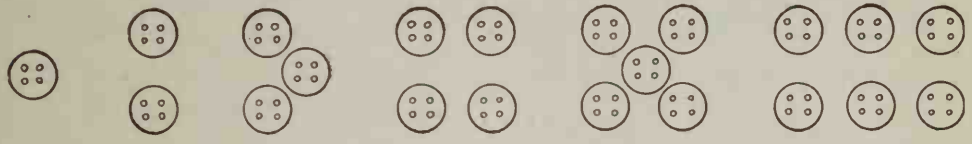
TALLYING, GROUPING

The first counting done by the human race seems to have been merely tallying by means of counters or sticks; later the fingers were employed or marks set down. In either case, tallying is a putting of a counter, a finger or a mark for each of the objects counted and was doubtless at first without words. The use of the fingers for tallying soon led to the discovery that words are convenient substitutes for counters of any kind and that five or ten is a convenient group for repetition. Thus arose the practice of grouping groups (ten tens make a hundred, ten hundreds make a thousand, etc.). Thus, a limited number of names has been adopted and thus by repeating these with slight modification to indicate groups of groups, a system is at command that is capable of indefinite expansion.

Each member up to ten has its individual name; beyond ten, numbers are named according to their grouping, using ten as a base; twenty is but two tens, thirty, three tens, forty, four tens, etc., while fifteen is five and ten. The invention of a few more group names like hundred, thousand, million, etc., puts us in possession of a complete set of names and constitutes what we call the decimal system of numeration.

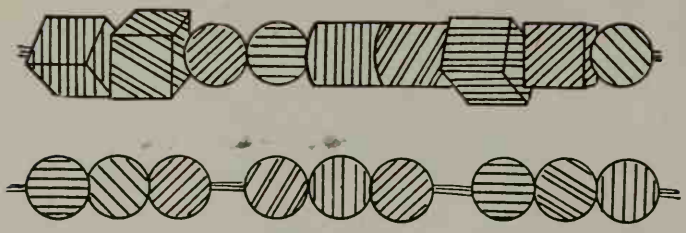
So we see that counting with words is a sort of mental tallying, easily manipulated by one who is practiced in it, but we who are masters of this art through much practice, do not easily appreciate the difficulties it presents to a learner.

Having acquired the number names, say to ten, in their proper succession, the learner may be led to assemble counters like buttons or pennies into characteristic groups, and to associate the proper number names.



Domino blocks may be presented, though the game of dominoes is too difficult for this age, but movable counters should be employed for the laying of these groups or the invention of others. Then pencil and brush may also be used to reproduce them. Creative and initiative faculty should be brought into play. Seeing should be supplemented for a time by making.

Another exercise in grouping is the stringing of colored wooden beads, such as kindergartners use. Two cubes, two spheres, two cylinders, or three red, three orange, three yellow, three green, three blue, three purple spheres. (Of course, this calls for repeated countings, and this repetition tends to fix the counting habit.)

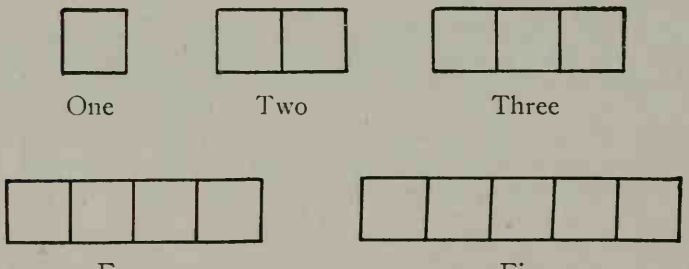


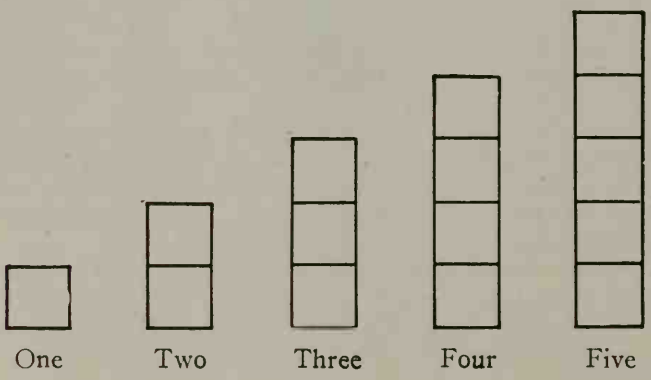
A great variety of alternations or successions of forms or of color are possible, as well as variations of both form and color.

ASSEMBLING SQUARES

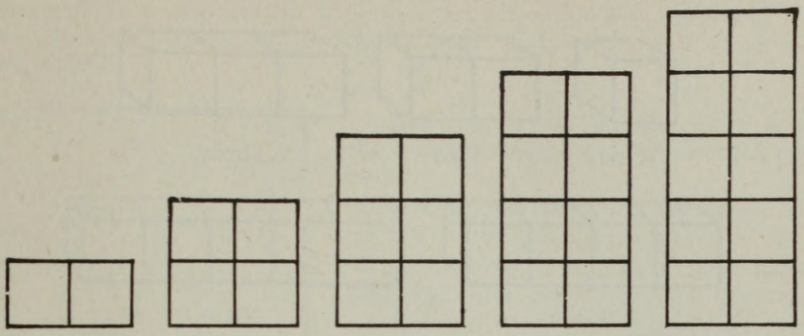
For this exercise each pupil should be supplied with pasteboard or stiff paper squares. At first for convenience in handling, it is well that these should be two-inch squares. Then when practice has built up some skill in handling, the size may be reduced, and finally one-inch squares may be employed.

Placing and Counting by Ones



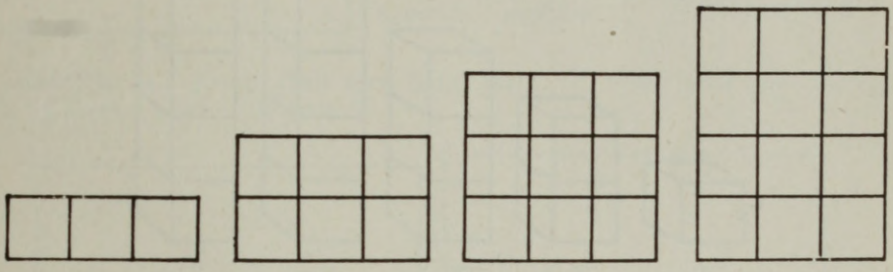


Placing and Counting by Twos



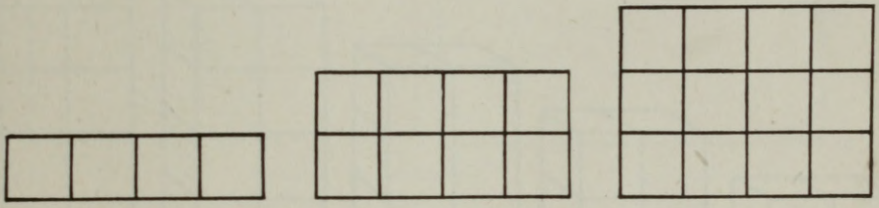
Two Four Six Eight Ten

Placing and Counting by Threes



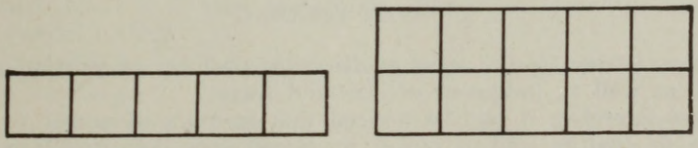
Three Six Nine Twelve

Placing and Counting by Fours



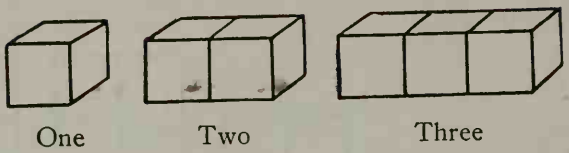
Four Eight Twelve

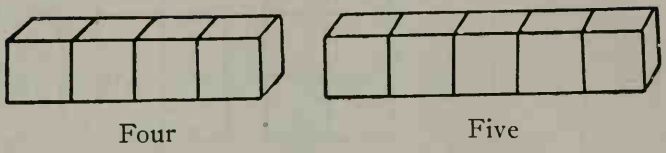
Placing and Counting by Fives

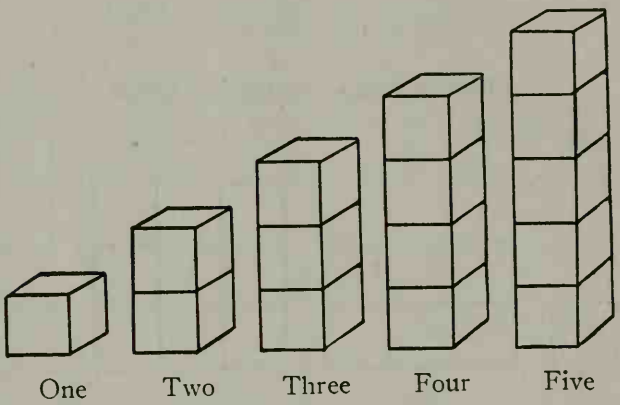


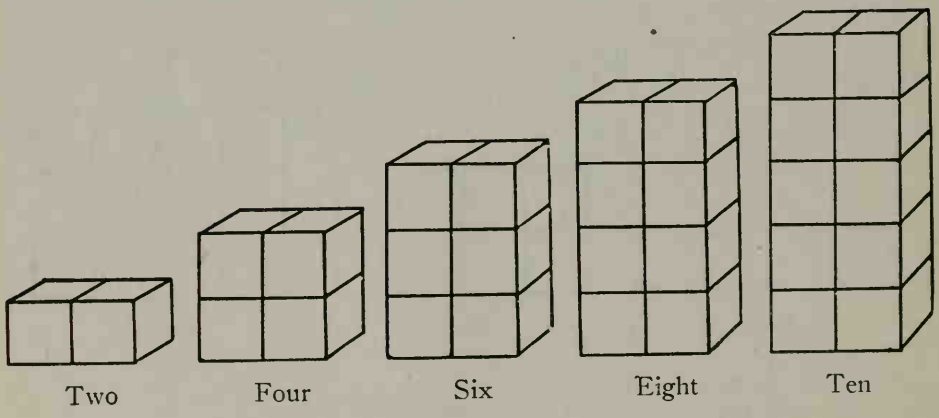
Five Ten

Building with Cubes







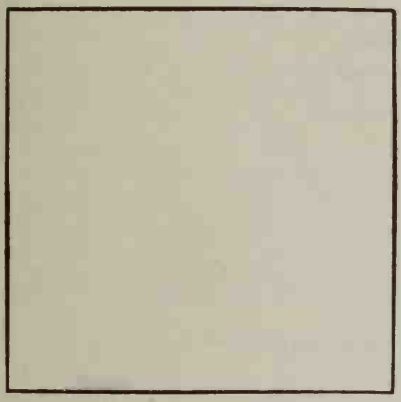


PAPER FOLDING

Exercises to develop the sense of direction, position, proportion and manipulative skill, as well as judgment of size and form.

In these exercises it will be noticed that training of power to divide into equal parts or analyze, and of power to assemble or construct larger units out of smaller ones, proceed together. Analysis (division) creates fractions; building

(addition) makes integers; but each activity supplements and is necessary to the other. Complete knowledge of number includes division into equal parts (fractions) as well as multiplication of units into larger wholes (integers). These exercises are also intended to develop ideas of direction as well as of size and form and number.



Exercise I. A Square. Let a square (say 8 inches long) be placed on each desk for study.

1. Let flat of hand feel the entire surface and realize its limits or boundaries.

2. Let the tip of forefinger trace perimeter, front edge, back edge, left edge, right edge.

3. Let tip of finger locate front corners, back corners, left corners, right corners; left front, right front, left back, right back.

Caution. The terms *upper* and *lower* can not properly apply to edges of a square in a horizontal position.

Exercise II. Front Half and Back Half. 1. Fold front edge to back edge. Crease. Open. (Figure 17.)

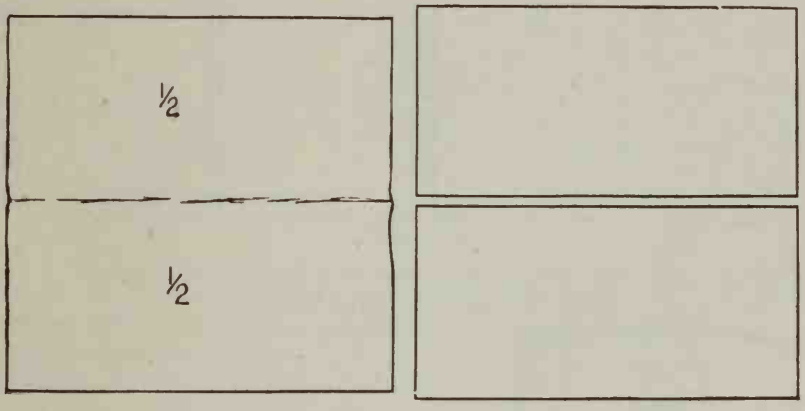


FIGURE 17

2. Let the flat of the hand explore front half; back half.

3. Let the tip of the finger trace the diameter from left to right.

4. Crease another square to show left to right diameter. Tear front half from back half.

5. Compare front half with back half. Place one upon the other. Say, "This half is equal to that."

6. Compare the short edge with the long edge. Lay the short edge of one half upon the long edge of the other half.

7. Make a wall pocket of two colored squares folded as in Figure 17. Hang from string as shown in Figure 18.

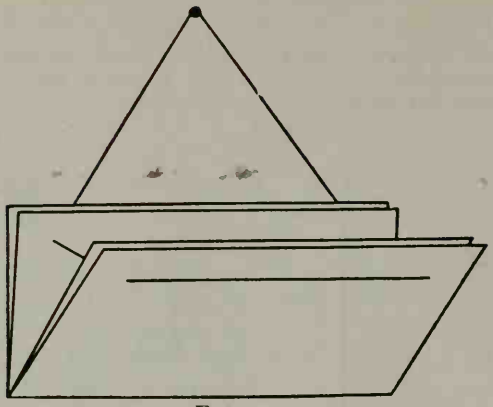


FIGURE 18

Exercise III. Left Half and Right Half. 1. Fold the left edge to the right edge. (Figure 19.)

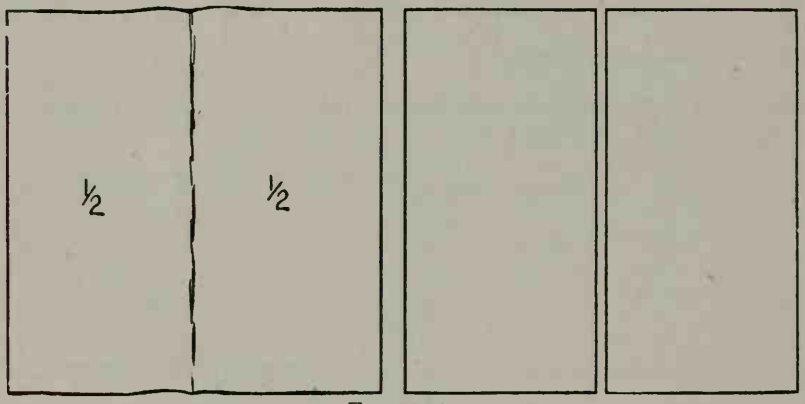


FIGURE 19

2. Observe and trace front to back diameter with tip of finger.
3. Place flat of hand on left half; on right half.

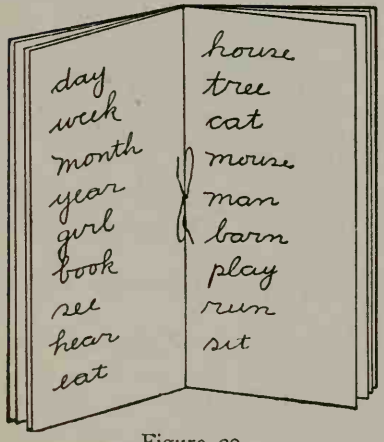


Figure 20

4. Make a word book. (Figure 20.)

(a) For a cover, fold a square of colored construction paper as in direction 1, above.

(b) For leaves, fold squares of white writing paper.

(c) Sew together as shown in Figure 20.

5. Crease another square and tear or cut left and right half apart.

6. How many halves? Compare. Place one on the other. Repeat, "They are equal."

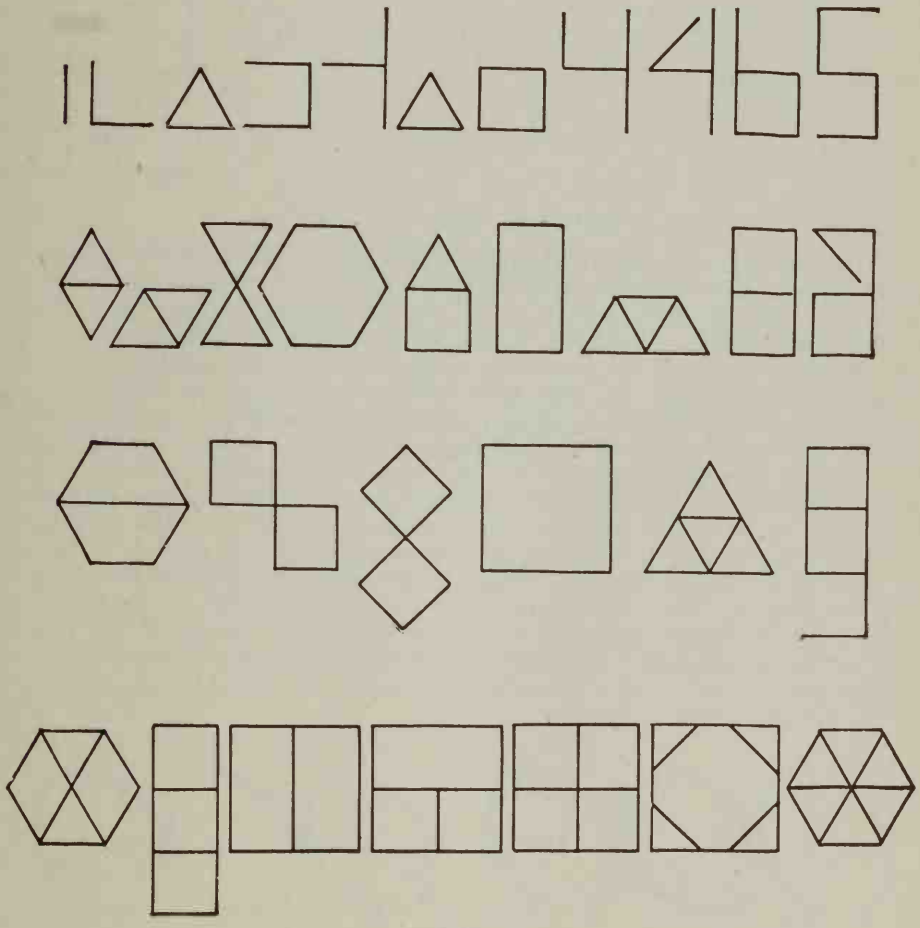
7. Find other equal things in the room.

8. Compare front edge with right edge. Measure by placing short edge of one piece upon long edge of the other. Use the terms *longer, shorter, half* and *two times as long* in making these comparisons.

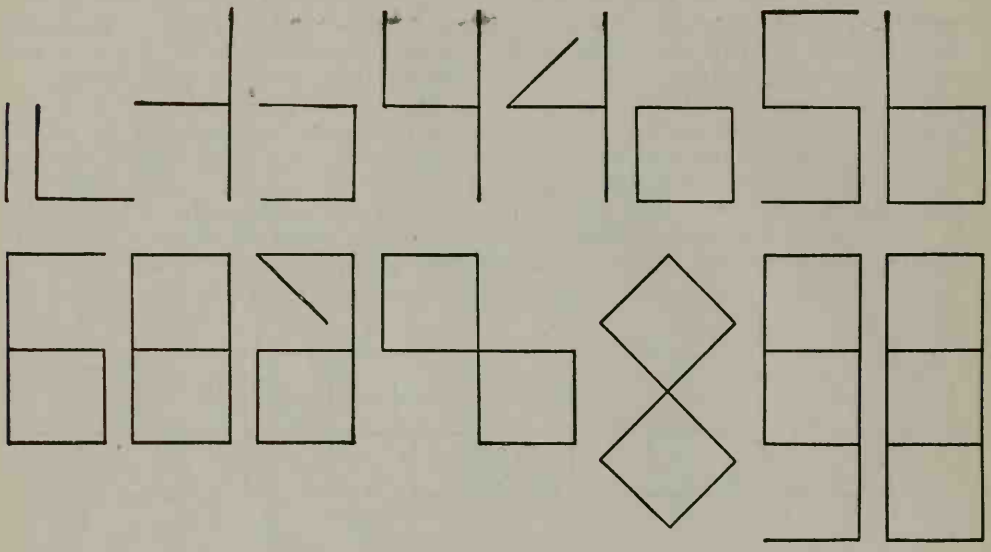
STICK LAYING

If pupils are supplied with toothpicks, shoe pegs or other sticks of equal length, they may easily be led to invent such combinations as are here illustrated, and many other forms as well.

In such a case, we have not only the repetition of a given unit but such a combination of units as enforces the oneness of the whole because the constituent units become parts of the whole. Thus we speak and think of *a five* or *a six* as easily as of five ones, or six ones. This unifying process, or summing, is highly important. Indeed it is characteristic of number thinking. A loose assemblage of parallel sticks or marks does not offer this assistance to the mind. The recognition of unity in that which is multiple is one of the two coordinate movements that constitute the essence of number. The other is opposite and supplementary thereto. It is the analysis of units into equal parts. This should be apparent in the paper-folding exercises, but the mind never uses either of these movements alone. Each constantly accompanies and clarifies the other.



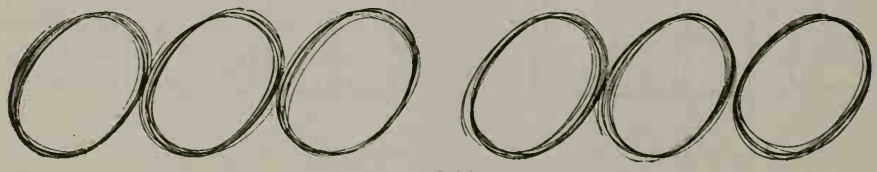
Special Designs. The following forms are urged as worth repeating again and again until there is perfect familiarity with the number of sticks built into each form. Their general resemblance to the common Arabic figures used in writing numbers is evident.



LEARNING TO WRITE FIGURES

After learning to recognize the digit forms, pupils will have the impulse to imitate them. Here they should be taught the difference between the flowing script forms that are used in writing and the stiff forms of the printer. There should be careful guidance at this point and vigilant supervision of the pupil's efforts in order to avoid the formation of bad habits in the making of figures. It is not sufficient to present the proper form and leave the learner to his own devices in copying it. He must not only study its shape, but he must be carefully trained to observe the proper place to begin each figure and the proper tracing of its form. The following exercises are suggested, leading to correct habits of figure production. They should be practiced until the hand and eye are trained to easy and rapid figure making. At first, they should be made large with chalk at the blackboard or with charcoal or waxed crayon on paper. Only very soft, blunt pencils are permissible. Hard pencils should be avoided because they cramp the fingers. The speed should be as rapid as possible at the beginning and should be increased until skill and power have been attained. The teacher should not be satisfied until the pupil has attained the speed indicated.

Practice the following movement exercise at the blackboard. Rate—60 ovals or circuits to the minute.



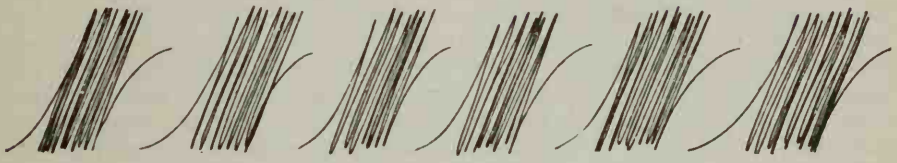
Count one, two and retrace left side so as to close the top. Make 60 per minute.

0 0 0 0 0 0 0 0 0 0 0 0

Count one, two. Make 60 per minute.

6 6 6 6 6 6 6 6 6 6 6 6

Practice the following exercise at the blackboard. Rate—90 per minute. Count only for the down strokes.



Count one, one, one. Make 90 or more per minute.

1 1 1 1 1 1 1 1 1 1 1 1

Count one, two, three. Make 60 per minute.

4 4 4 4 4 4 4 4 4 4 4 4

Practice the following exercise:
Make 60 circuits per minute. Make 8 loops to each figure.

Count one. Make 60 per minute.

8 8 8 8 8 8 8 8 8 8 8 8

Count one, two. Make 60 per minute.

9 9 9 9 9 9 9 9 9 9 9 9

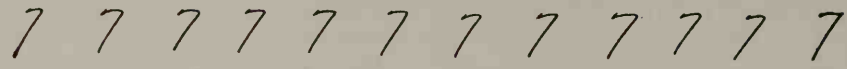
Count one, two, three. Make 40 per minute.

5 5 5 5 5 5 5 5 5 5 5 5

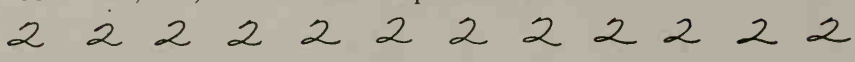
Count one, two. Make 60 per minute.

3 3 3 3 3 3 3 3 3 3 3 3

Count dot, one, two. Make 60 per minute.



Count one, two, three. Make 60 per minute.



MEASURING

The ordinary 12-inch ruler furnishes a straight edge, but beyond this it is of little service for beginners. For measuring it has so many marks as to be confusing. This confusion is partially obviated by rulers having no marks but inch marks. These are far superior to ordinary rulers; nevertheless difficulties enough remain to be overcome. The numbering sometimes runs in a contrary direction to that in which the pupil desires to measure. This numbering, when best placed, runs from left to right. Often the pupil's counting must be from right to left. Frequently, also, it is necessary to measure from front to back or vice versa when the beveled edge of the ruler will be on the opposite side from that on which the measuring is easiest and most natural. In addition to this the numbering on the ruler is likely to be reverse to that in which the pupil must count the distance. These awkward conditions should be recognized and carefully provided for. It is therefore suggested that for a beginning, learners be provided with sets of cardboard rulers, unmarked and of varying lengths as required. (Figure 57.)

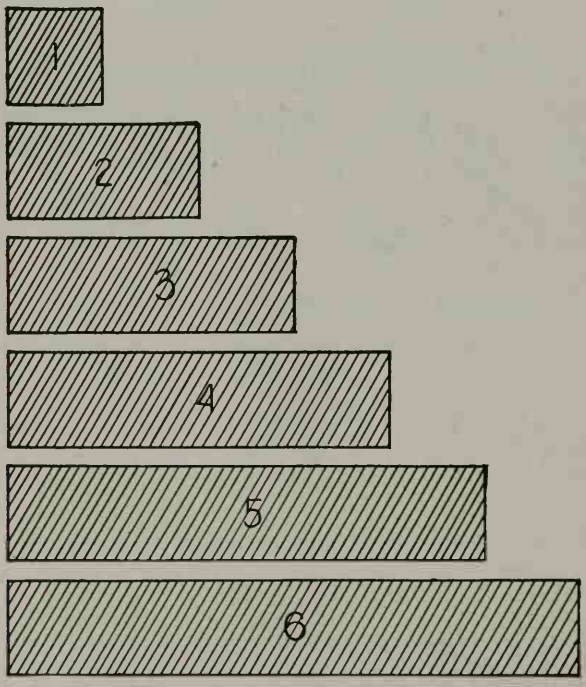


FIGURE 57

These may be 1 inch, 2 inches, 3 inches, 4 inches, 5 inches or 6 inches long, and each should be used as a unit of length. For instance, if it be desired to construct a rectangle 4 inches long and 3 inches wide, each pupil should be provided with a 4-inch and a 3-inch ruler. These should have no subdivisions or marks of any kind except the figures that indicate their length. (Figure 58.)

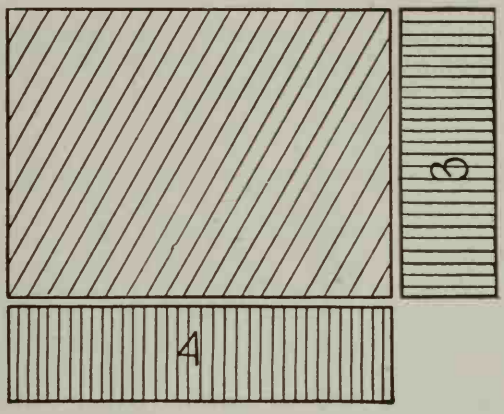


FIGURE 58

REMARKS

The exercises given are but few of many that will suggest themselves to the resourceful teacher. Let them be extended and reviewed until the purposes sought in first grade work are impressed upon the youthful mind. You will note the pupil has had some training in the correct making of figures, his sense of proportion has been appealed to and he has had some training in estimating space and relative extent; in short, a foundation has been laid upon which real knowledge of number can be built. This advance has been won in a natural way.

PURPOSES OF SECOND-GRADE WORK

1. To beget familiarity with the elementary sums and differences as concrete facts.
2. To train the hand and eye to closer discriminations of size.
3. To perfect the recognition and construction of terms that display the relationships ½, 2; ¼, 4; ⅓, 3.
4. To refine the sense of proportion.
5. To learn to make and to use 8-fold, 16-fold, and 12-fold.
6. To recognize and use constructively the ratios ¾ and ⅔.
7. To learn objectively the beginnings of the processes of addition and subtraction.
8. To fix in the visual memory certain figure associations that represent the elementary sums and differences.

The thought underlying these exercises must not be forgotten. Perception involves counting and comparing, handling and creating. Let us direct the play instinct. The paper squares the children assemble, the forms they build up are training the judgment, the sense of proportion, and developing the idea of number. Knowledge of form depends upon manipulation of objects possessing a variety of forms, and upon the care exercised in observing and comparing their properties.

PAPER FOLDING

Exercise X. Diagonals of Squares. 1. Fold left front corner to right back corner. This makes a diagonal crease from right front corner to left back corner. (Figure 81.) Separate the halves. (Figure 82.) Place one on the other so as to fit.

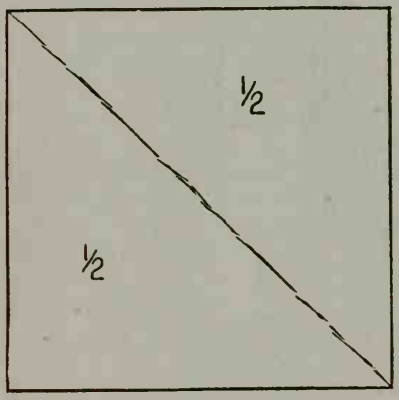


FIGURE 81

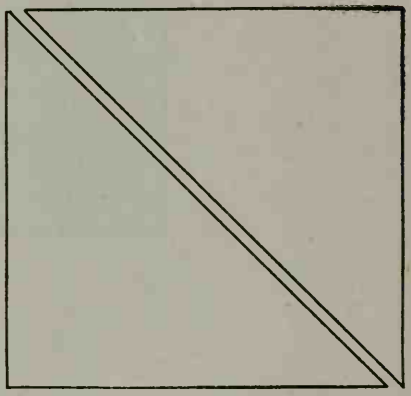


FIGURE 82

2. Fold right front corner to left back corner. This creases the diagonal from left front corner to right back corner. (Figure 83.) Separate the halves. (Figure 84.) Place one on the other so as to fit.

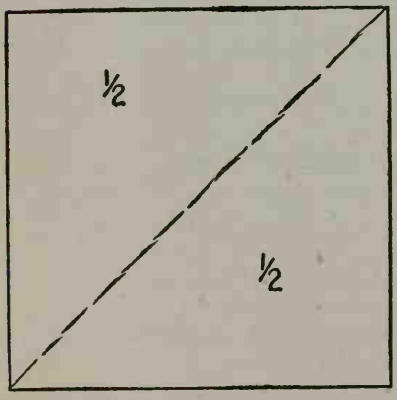


FIGURE 83

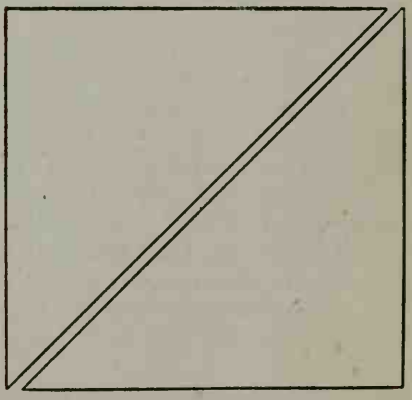


FIGURE 84

Exercise XI. Quartering Squares by Means of Diagonals. 1. Make the diagonals by:

(a) Creasing. (Figure 85.)
(b) Ruling.

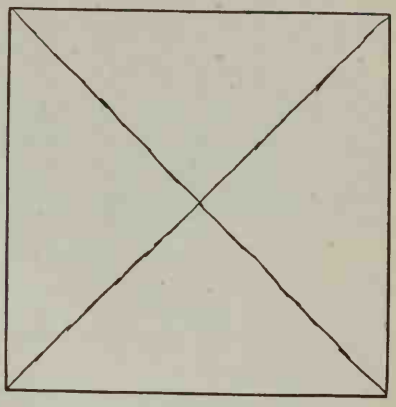


FIGURE 85

2. Make a pinwheel.
   (a) Cut along diagonal creases as shown in Figure 86.
   (b) Fold alternate triangular corners to center. (Figure 87.)
   (c) Pin to a handle.

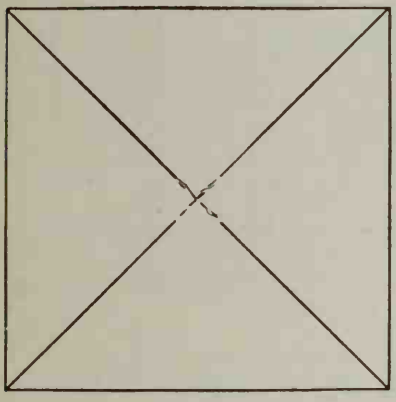


FIGURE 86

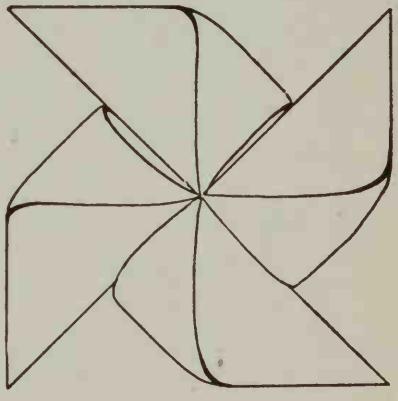


FIGURE 87

3. Make designs by laying right triangles. (Figures 88 and 89.)

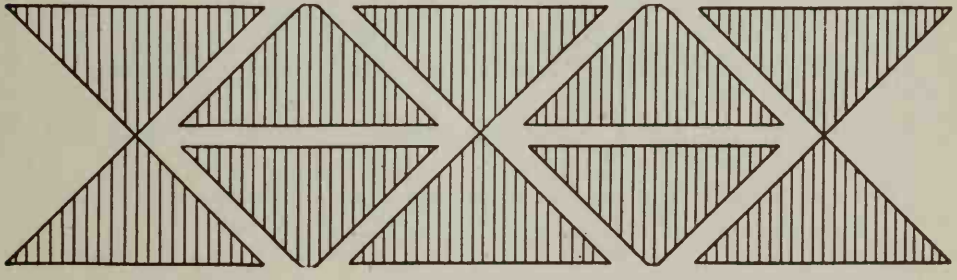


FIGURE 88

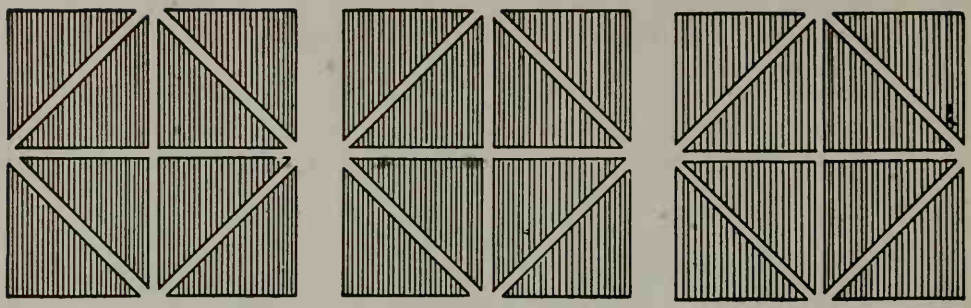


FIGURE 89

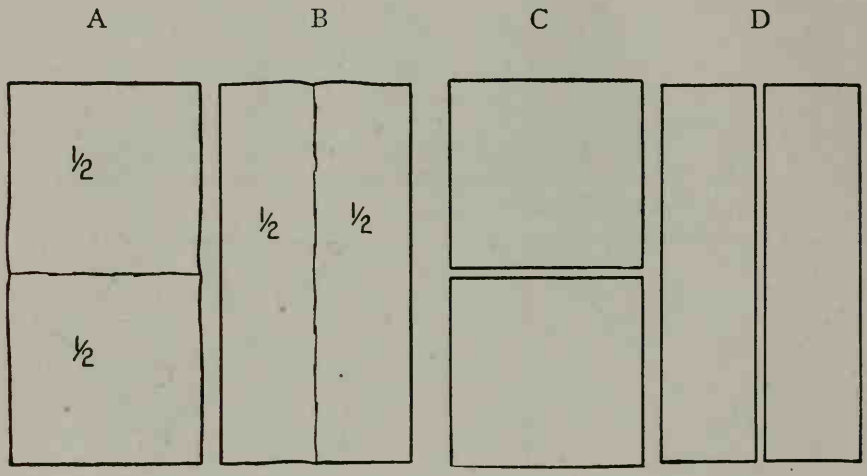


FIGURE 90

Exercise XII. Equality of 1 x 4 Rectangle and 2 x 2 Square. 1. Lay two 1×2 rectangles with short edge of each as front edge.

2. Fold front edge of first to back edge. (Figure 90A.)

3. Fold left edge of second to right edge. (Figure 90B.)

4. Separate the halves. (Figure 90C and 90D.)

5. Compare the square 2×2 with the rectangle 1×4. Give reasons for equality.

(a) Because $\frac{1}{2}$ of 1×2 rectangle transversely equals $\frac{1}{2}$ of 1×2 rectangle longitudinally.

(b) Because 2 times a 1×4 rectangle equals 2 times a 2×2 square.

6. Play making a garden and dividing into beds.

Exercise XVII. Ironing Day. Provide each pupil with a white piece of paper 8 inches square.

1. Fold the front edge to the back edge. Iron it down; smooth with the finger nail. What form results?

2. Without opening, fold left edge to right edge. Iron again. What form?

3. What article of laundry shall we call it?

4. Let us prepare and iron a towel; a tablecloth; a napkin.

5. Open and smooth out. Observe the creases. Into how many equal parts is each piece divided?

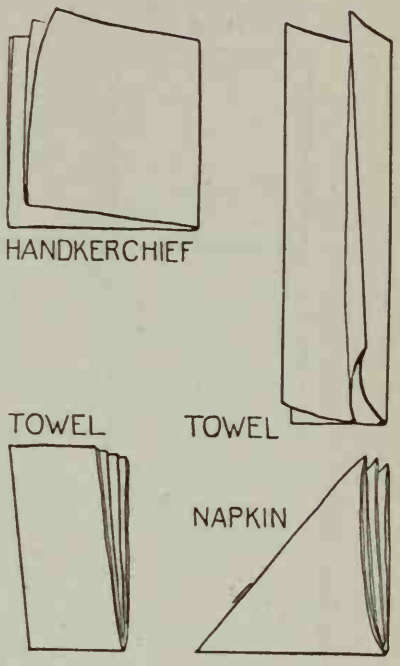


FIGURE 100

Exercise XVIII. 1. Build a rectangle of two 2-inch squares.

2. Unite two such rectangles side to side. What form results?

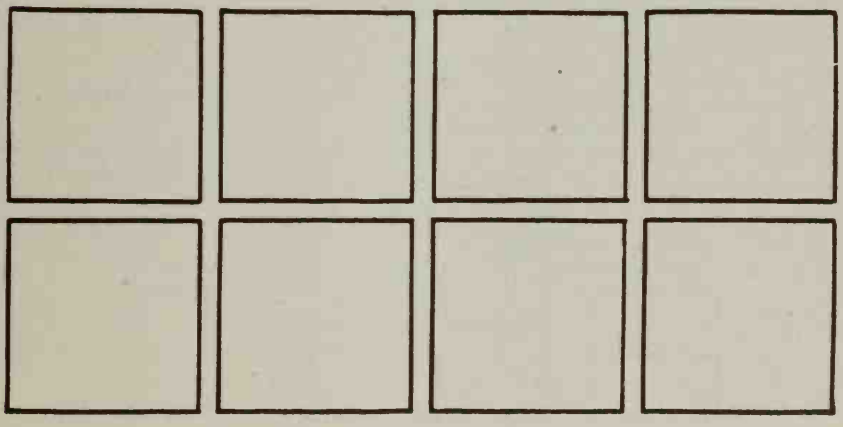


FIGURE 101

3. Unite two such fours. (Figure 102.) Compare this last form with the form resulting from uniting the first two squares.

4. Unite two squares, then unite two resulting forms end to end. What form results from this uniting? Compare in size with the result in No. 3 above.

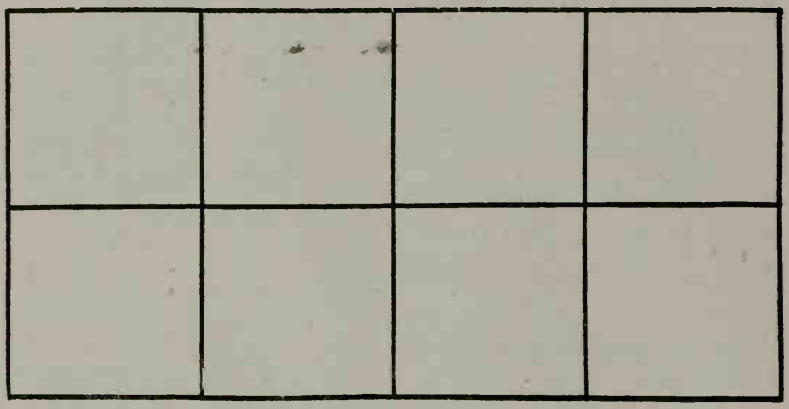


FIGURE 102

5. Count to 8 by 2's; by 4's.

6. Fold a square into eighths. What shape is each eighth?

Exercise XIX. Build a two-inch cube of one-inch cubes. How many are required?

1. Make one row; one layer. How many layers are needed? How many rows in each layer? How many cubes in each row? Build two layers. (Figure 103.)

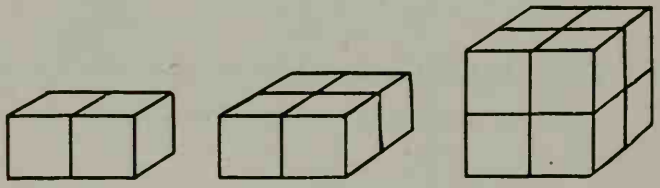


FIGURE 103

2. Separate a two-inch cube so built into upper and lower halves; into left and right halves; into front and back halves.

3. Separate such a cube into quarters. Show how the quarters may be (a) horizontal, left to right; (b) vertical (posts); (c) horizontal quarter front to back can be illustrated in a similar manner. (Figure 104.)

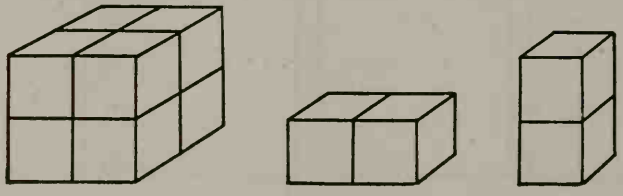


FIGURE 104

Exercise XX. The Sixteen-Fold. 1. Fold two 4″x8″ rectangles into eighths as shown in illustration. Put them together. (Figure 105.)

2. Fold an eight-inch square into quarters, then fold each edge to the middle crease. (Figure 106.)

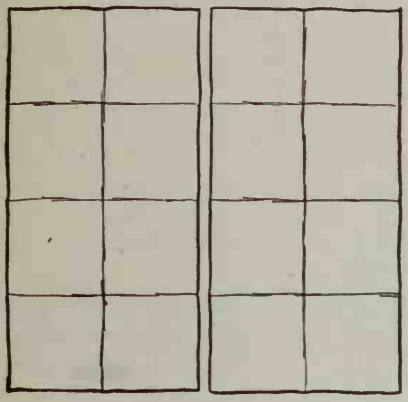


FIGURE 105

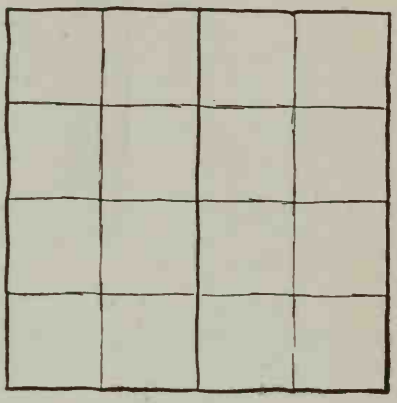
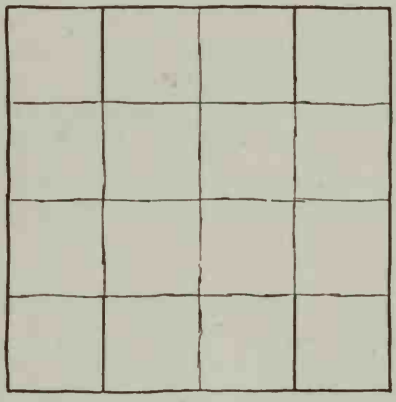


FIGURE 106

D C



A B

FIGURE 107

3. Make a house.

(a) Crease a 16-fold.

(b) Cut the pattern at A, B, C and D, as shown in Figure 107.

(c) Fold that part of front edge which is included between the cuts back to first crease.

(d) Fold back edge forward in similar fashion. These two folds make the projecting gables.

(e) The middle crease forms the ridge of the roof, and the corner squares overlap in front and rear to make the ends. (Figure 108.)

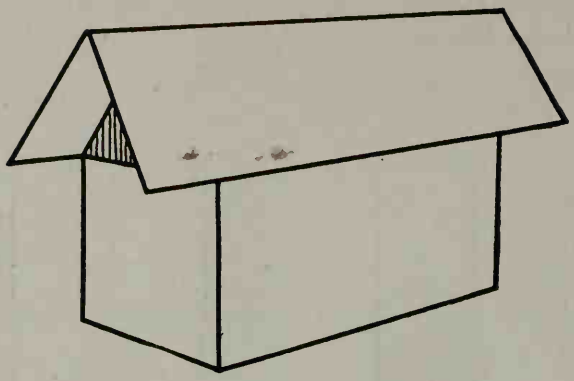


FIGURE 108

4. Cut a two-inch square. How many such squares in one row of the 16? How many rows? Count by 4's to 4 fours; 4 fours equal what number? How many 4's in 16?

5. Add 4
4
4
4
—

$4 \times 4 = ?$
$16 \div 4 = ?$

6. Lay an 8-fold on the 16-fold.
16 = how many 8's? 8 = what part of 16?

7. 8 and 8 are how many? 16 is how much more than 8?
Give sum: 8 +8 —
Give difference: 16 −8 —

8. How many 8's in 16? 16 equals how many 8's?
$2 \times 8 = ?$
$16 \div 8 = ?$

9. Show the front half of the 16; the left half. $\frac{1}{2}$ of 16 = ?

10. Cut a four-inch square and lay it on the 16-fold. $\frac{1}{4}$ of 16 = ?

11. Cut a rectangle 2 inches by 8 inches, also one 6 inches by 8 inches. Cover the front row of the 16-fold with one rectangle, and the other three rows with the other. Reverse.

12. Cover the left row of the 16-fold with the smaller rectangle and the other three rows with the larger. Reverse. $\frac{3}{4}$ of 16 = ?

13. Cut a rectangle 2 inches by 4 inches. The 16-fold equals how many such rectangles? 16 equals how many 2's?

14. Add: 2
2
2
2
2
2
2
2
—

$8 \times 2 = ?$
$16 \div 2 = ?$

PURPOSES OF THIRD-GRADE WORK

1. To lay a basis in constructive experiences for the number concepts of both the multiplication and the division tables.
2. To form habits of reproducing visually the figure associations of these tables with ease, accuracy and facility.
3. To take the first easy steps in computing values that cannot be known directly.
4. To rationalize the number mechanisms in the process of acquiring them.
5. To secure by repetition smoothness, precision and dispatch in certain easy forms of computation.
6. To learn the decomposition of the composite numbers of the table. Easy factoring.
7. To read and write all numbers to 10,000.
8. To see multiplication and division as supplementary to each other; and the same with reference to addition and subtraction.

COMBINING AND SEPARATING NUMBERS

Twenty. 1. Supply pupils with one-inch squares. Lay two tens. (Figure 162.) How many fives? Show by dividing each ten into fives. (Figure 163.)

FIGURE 162

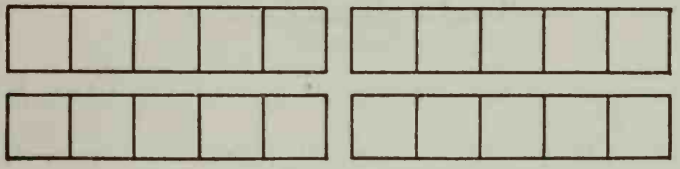


FIGURE 163

2. $\frac{1}{2}$ of 20 = what? $\frac{1}{4}$ of 20 = what? Show this.
3. How many tens in 20? 20 ÷ 10 = what?
4. Separate the front row from the back row. Separate each ten into halves.
5. How many fives in 20? 20 ÷ 5 = what? 5 = what part of 20?
6. Make a 20 by uniting the fives so as to produce a rectangle 4 inches by 5 inches. (Figure 164.)

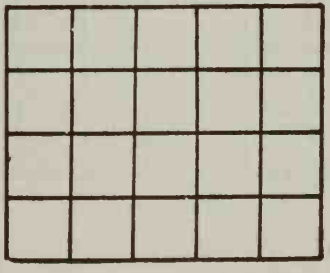


FIGURE 164

7. How many 4's in 20? $20 \div 4 =$ what? $\frac{1}{5}$ of 20 = what? Show by dividing the 20 into 4's. (Figure 165.)

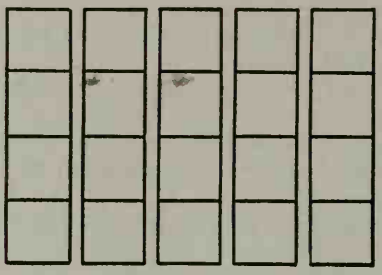


FIGURE 165

8. Count 20 by 4's; by 5's; by 10's; by 2's.

9. Separate the back row from the remainder. (Figure 166.) $\frac{1}{4}$ of 20 = what? $\frac{3}{4}$ of 20 = what?

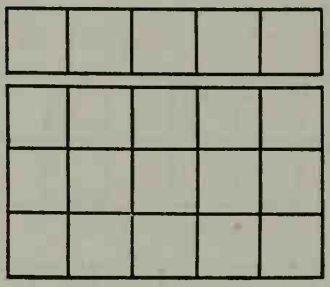


FIGURE 166

10. How many 5's in 15? What equals $\frac{1}{3}$ of 15? $\frac{2}{3}$ of 15? $15 \div 5 =$ what? $3 \times 5 =$ what? Show this.

11. How many rows of 3's in 15? 15 = how many 3's? $15 \div 3 =$ what? $\frac{1}{5}$ of 15 = what?

Forty. 1. 20 and 20 = what? Show this by laying 2 twenties end to end. (Figure 167.) How many squares in each left to right row? How many rows? Count $10 + 10 + 10 + 10$.

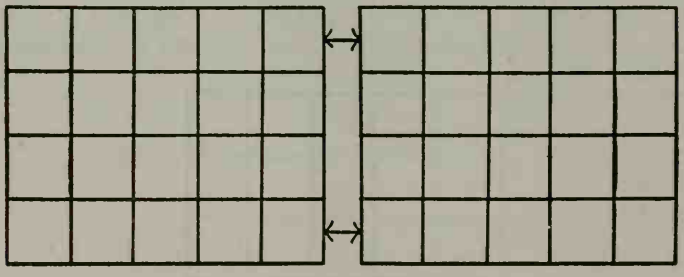


FIGURE 167

2. How many 5's in 20? Then how many 5's in 40? Why? $40 \div 5 =$ what? $8 \times 5 =$ what? 5 = what part of 40?

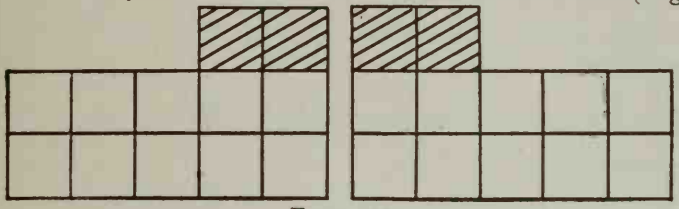
3. How many 4's in 20? Then how many 4's in 40? $40 \div 4 =$ what? $10 \times 4 =$ what? Separate the 40 into rows running front to back.

4. How many 10's in 40? $40 \div 10 =$ what? $4 \times 10 =$ what? $\frac{1}{4}$ of 40 = what?

5. Count by 5's to 40; by 4's; by 8's. Since $40 = 8 \times 5$, 40 = how many 8's?

Twenty-four. (Supply each pupil with 24 one-inch squares.)

1. Lay 2 twelves. Unite. What is the sum? (Figure 168.)



12 $12 = 10 +$ what?
12 2 twelves = 2 tens
— and what?

FIGURE 168

2. Alter the given forms by shifting the end squares to the back row, so that A and B will fall where A′ and B′ are, and C and D where C′ and D′ are. (Figure 169.) This will make of each 12 a rectangle 3 inches × 4 inches.

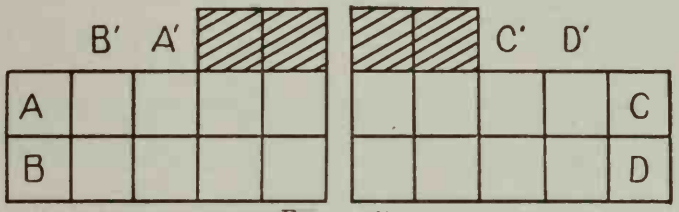


FIGURE 169

Join the 12's. How many squares in the front row of the resulting rectangle? How many such rows? 24 = how many 8's? $24 \div 8 =$ what? $3 \times 8 =$ what?

3. Observe the rows running from front to back. How many such rows? How many squares in each row? $8 \times 3 =$ what? How many 3's in 24? $24 \div 3 =$ what?

4. Cut a paper rectangle 3″ by 8″; another 1″ by 8″; a third 2″ by 8″. Write on them the names 8, 16, 24. Which should be called 8?

5. What number equals $\frac{1}{3}$ of 24? $\frac{2}{3}$ of 24 = what? Show by the rectangles of problem No. 4. Which rectangle covers $\frac{1}{3}$ of 24?

6. Arrange 2 twelves thus: (Figure 170.)

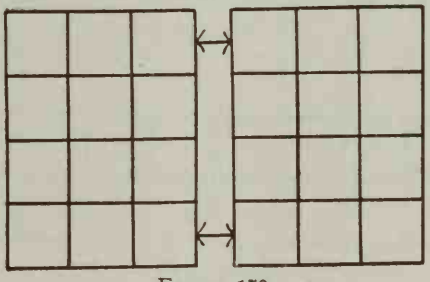


FIGURE 170

Unite. How many squares in each left to right row? How many such rows? How many squares in each front to back row? How many such rows?

7. 24 = how many 6's? How many 4's? $4 \times 6 =$ what? $6 \times 4 =$ what?

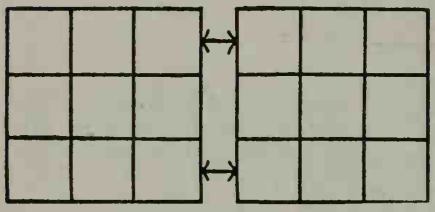
8. Count by 4's to 24; by 6's; by 3's; by 8's.

9. Show $\frac{1}{4}$ of 24. $\frac{1}{4}$ of 24 = what? Show $\frac{3}{4}$ of 24. Cut a rectangle to cover $\frac{3}{4}$ of 24. $\frac{3}{4}$ of 24 = what?

10. Show $\frac{1}{6}$ of 24. Cut a rectangle 2″ by 4″. How many such are required to cover the 24? 3 what = 24? $\frac{1}{3}$ of 24 = what?

11. Cut a rectangle to cover one row left to right. What part of the 24 does it equal? 4 what = 24?

Eighteen. 1. Lay two nines and unite them. (Figure 171.)



How long and how wide is the resulting rectangle.

FIGURE 171

2. How many rows from left to right? How many squares in each row? Count by 6's to 18; to 24.

3. Cut a rectangle 1 inch by 6 inches. 6 equals what part of 18? $\frac{1}{3}$ of 18 = what? How many 6's in 18? $18 \div 6 =$ what? $3 \times 6 =$ what?

4. Cut a rectangle 1 inch by 3 inches. How many rows equal to it in the 18? How many 3's in 18? $18 \div 3 =$ what? $6 \times 3 =$ what? $\frac{1}{6}$ of 18 = what?

5. What two equal numbers unite to make 18? $\frac{1}{2}$ of 18 = what?

6. How many twos in the front row? In the back row? In all? $9 \times 2 =$ what? Count by twos to 18.

7. Lay 18 squares in 2 rows of 9 each. Separate into halves. $\frac{1}{2}$ of 18 = what? $2 \times 9 =$ what? $18 \div 9 =$ what?

8. Unite the foregoing squares and separate into 9 rows of 2 each. $18 \div 2 =$ what? $9 \times 2 =$ what? $\frac{1}{9}$ of 18 = what?

9. Separate an 18 into thirds; sixths; ninths.

Twenty-one. 1. Arrange 21 squares in two rows of ten each and one more. (Figure 172.)

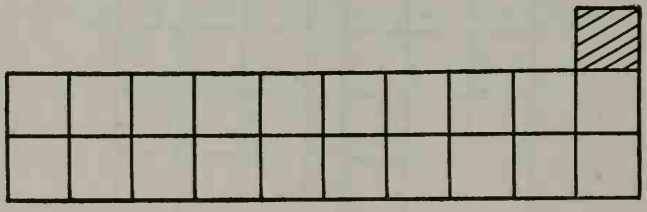


FIGURE 172

2. From the right end remove squares one at a time and build them into a third row from left to right until the 21 squares have been arranged in three

equal rows. (Figure 173.) How many squares will then be in each row? $21 = 3$ what?

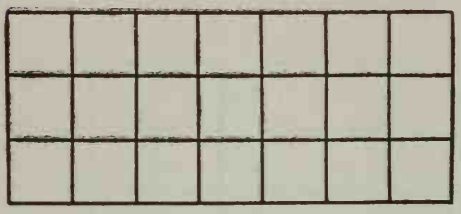


FIGURE 173

3. What is $\frac{1}{3}$ of 21? Count to 21 by 7's. $\frac{2}{3}$ of $21 =$ what? $21 \div 7 =$ what? $3 \times 7 =$ what?

4. Reckoning the rows from front to back, how many rows in the 21? How many 3's in 21? $21 \div 3 =$ what? $7 \times 3 =$ what? $\frac{1}{7}$ of $21 =$ what?

5. Count by 3's to 21.

Twenty-eight. 1. Cut two rectangles each 2 inches by 7 inches. Rule into square inches and unite. (Figure 174.) $14 + 14 =$ what?

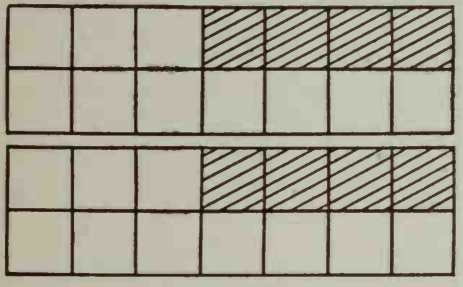


FIGURE 174

14
14
—

How many tens and how many ones? $4 + 4 =$ what? $10 + 10 =$ what?

2. How many rows of 7 squares?

   $28 \div 7 =$ what?

3. Separate 28 into four equal parts. $\frac{1}{4}$ of $28 =$ what? $4 \times 7 =$ what?

4. Separate 28 into 7 equal parts. $\frac{1}{7}$ of $28 =$ what? $7 \times 4 =$ what?

5. Count by 4's to 28. Count by 7's to 28.

6. Add: 21
   21
   —

   (a) $1 + 1 =$ what?
   (b) 2 tens + 2 tens = what?
   (c) Then $21 + 21 =$ what?

7. Since $21 = 3 \times 7$, $42 =$ how many 7's?

Thirty-five. 1. Build 35 of 3 tens and five. Separate into 5's, thus: (Figure 175.)

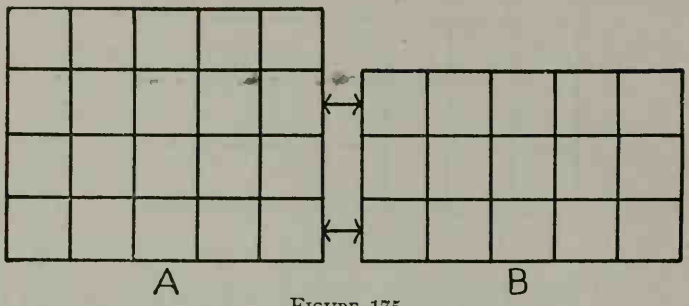


FIGURE 175

2. Unite A and B so as to make 7 rows of 5 each. (Figure 176.)

3. How many 5's in 35? $35 \div 5 =$ what? $7 \times 5 =$ what? Count by 5's to 35. $\frac{1}{7}$ of $35 =$ what?

4. How many one-inch squares in each row from front to back and how many such rows? $5 \times 7 =$ what? $\frac{1}{5}$ of $35 =$ what? $35 \div 7 =$ what?

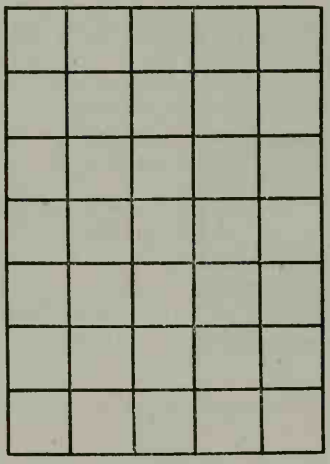


FIGURE 176

Thirty. 1. Unite three tens. Divide into halves transversely. (Figure 177.) 3 tens $= 6$ what?

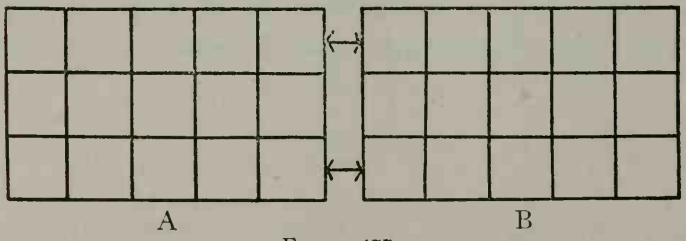


FIGURE 177

2. Rearrange the 30 squares by placing rectangle B back of rectangle A and uniting. (Figure 178.) How many rows of 5 squares each? How many rows of 6 squares each?

$30 \div 5 =$ what? $30 \div 6 =$ what?

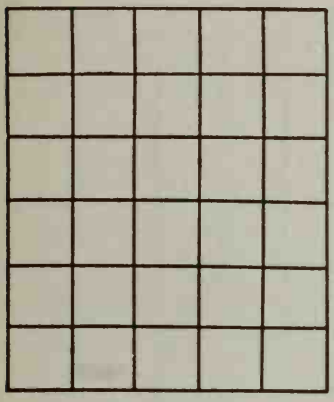


FIGURE 178

3. Count to 30 by 5's, by 6's. $6 \times 5 =$ what? $5 \times 6 =$ what?

4. Separate the 30 units into six equal parts. $\frac{1}{6}$ of 30 = what?

5. Separate a 30 into five equal parts. $\frac{1}{5}$ of 30 = what? $\frac{3}{5}$ of 30 = what? $\frac{2}{5}$ of 30 = what? $\frac{4}{5}$ of 30 = what?

Sixty. 1. $30 + 30 =$ what? Show this. How many 5's in 30? Then how many 5's in 60? $60 \div 5 =$ what? $12 \times 5 =$ what?

2. How many 6's in 30? Then how many 6's in 60? $60 \div 6 =$ what? $10 \times 6 =$ what?

3. How many tens in 60? $60 \div 10 =$ what? $\frac{5}{6}$ of 60 = what?

Twenty-five. 1. If one row of 5 be subtracted from 30 squares arranged as 6 fives, how many rows and how many squares in each row will be left? What number of squares left altogether? (Figure 179.)

2. $5 \times 5 =$ what? How many tens in 25 and what remainder? Arrange the 25 as 2 tens + 5.

3. Find $\frac{1}{5}$ of 25, $\frac{2}{5}$ of 25, $\frac{3}{5}$ of 25, $\frac{4}{5}$ of 25.

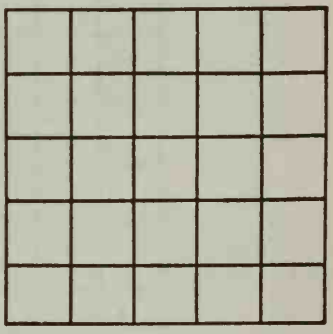


FIGURE 179

Fifty. 1. Unite 2 twenty-fives. (Figure 180.) How many tens in the result? How many fives? How many squares?

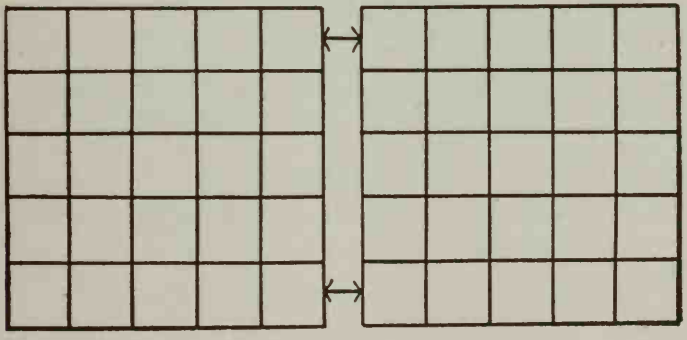


FIGURE 180

2. $50 \div 10 =$ what? $50 \div 5 =$ what? $\frac{1}{2}$ of $50 =$ what? $\frac{1}{5}$ of $50 =$ what? $\frac{1}{10}$ of $50 =$ what?

3. $5 \times 10 =$ what? $10 \times 5 =$ what? $2 \times 25 =$ what?

4. Count 5 cents at a time to 25 cents; to 50 cents. Count by dimes to half a dollar.

One Hundred. 1. Unite 2 fifties. (Figure 181.) How many tens? How many 25's?

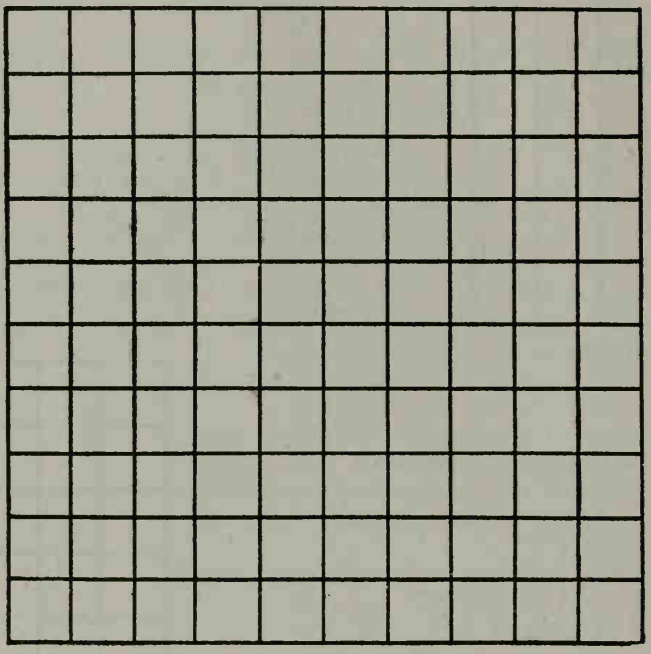


FIGURE 181

2. Count to 100 by 50's; by 10's; by 5's.

3. Add:
$$\begin{array}{r} 50 \\ 25 \\ \hline \end{array}$$

4. Count to 50 by 25's; to 75; to 100.

5. $\frac{1}{2}$ of $100 =$ what? $\frac{1}{4}$ of $100 =$ what? $\frac{3}{4}$ of $100 =$ what? 10 tens = what?

6. Count by dimes to one dollar; by 25 cents; by 5 cents.

7. One dollar = how many dimes? How many nickels?

SUMS

Material for illustrating: ten or more rectangles 1 inch by 10 inches and 10 or more one-inch squares.

1. Add:

(a)	70	40	50	20	30
	20	40	20	10	30
	—	—	—	—	—

SUGGESTIONS ON DECIMALS

As in all other departments of learning further operations in arithmetic are simply new applications of fundamental principles. When we give such operations a distinct name, the impression on a beginner in the study is that they are entering a new field of work with many new principles to be mastered. This is only true in a measure. We should emphasize the fact that it is simply the old principles with which pupils are familiar but those principles are now to be differently applied and treated from a different angle; but the new application will be very easy if they will clearly grasp the new point of view.

Decimals

We will first consider decimals because so many practical operations in business life,—interest, discount, etc.,—depend on operations in decimals. It is suggested that you do not use the word fractions in connection with decimals until later in the study; to do so at first confuses thought. Any example involving financial consideration is essentially an example in decimals and knowledge of decimals will doubtless become more important in the future since the tendency will be to make a greater use of the Metrical System of measures.

The Notation of Decimals

The new point of view to be clearly grasped in decimals is the significance of the decimal point. When the writing and the reading of decimal forms are not only understood but firmly fixed in mind, the most significant step has been taken in mastering decimals. Our first step, then, should be to clear away all mystery concerning the value, the numeration, and the notation of significant figures, determined by their position in reference to the decimal point.

Illustrations from U. S. Money Notations

We will illustrate the first step to be taken in decimals by operations in which it is necessary to make use of various sums of Federal money. The pupils must understand that this is for the purpose of illustration; that decimals are in no way derived from such notations, nor confined to such operations.

Practically all children old enough to begin work in decimals are familiar with the notation employed in writing sums of money. They understand perfectly how to write, say, five dollars and twenty-five cents; but it is well to use this practical knowledge to fix in their minds the principles of decimal notation. Do not make a formal lesson, but develop needed points by an informal talk.

How to Proceed

Write on the board such a sum of money as $1111. By an informal talk the teacher elicits the names,—units, tens, hundreds, thousands, etc. This, of course, is familiar to the pupils, but impress it once more on their minds. Also elicit that each figure increases tenfold in going from right to left, or it decreases tenfold in going from left to right. So far nothing new has been learned. The pupils probably know the significance of the point after the unit, one, but it is well to remark that well informed people call it the decimal point.

To the Right of the Decimal Point

But now comes the question where shall we write one-tenth of a dollar, or one dime? Some one is sure to reply; and the teacher points out that the law of decrease (by tenfold) from left to right still holds true. In a similar way,

elicit the position for a cent, or one-one-hundredth of a dollar. Now erase the dollar sign and tell them that what they see on the board is an example of a whole number in connection with a decimal. Review this first lesson. Elicit the fact that to the left of decimal point (in successive order) we have units, tens, hundredths, thousands, etc. While to the right of the decimal point, or dividing point, we have (in successive order) tenths, hundredths, thousandths, etc. In short, let pupils see that decimals are simply an extension of principles with which they are familiar.

Practice

Pupils must have a great deal of drill when this point is clearly seen. They must become perfectly familiar with the number of ciphers or significant figures to be pointed off, placed to the right of the decimal point. To illustrate, if you mention thousandths, they must mentally see that you are talking about a number in the third place to the right of the decimal point. If you ask them to write, say, 37 thousandths, they write 37, they reflect that they need three places to the right of the decimal point, they have but two, therefore a cipher before the 3 is required in connection with the decimal. Spend days if necessary in this drill until the pupils are thoroughly at home in numeration and notation of decimals.

Relation to Common Fractions

The pupils now are familiar with the significance of the decimal point, and they see that the department of decimals has to do with a further extension of principles already learned in the notation of numbers. It is now time to point out the relation of decimals to common fractions, with which they are also familiar. It is only necessary to point out that .1 and 1/10 are the same in value and so on. Take sufficient time to make this clear. Now is also the time to remark that it is so generally understood that decimal forms are fractional forms as well, that the term, decimal fractions, is often, even generally, used instead of simply decimals. Be sure and emphasize this point. They now see that it is not something essentially new that they are learning, but a new method of proceeding.

Operations in Decimals

All operations in decimals are now readily understood. However, multiplication and division may present a momentary difficulty. There is no objection in using common fractions to illustrate such operations in decimals. For instance, they readily see that $.4 \times .2 = 4/10 \times 2/10 = 8/100$ or that $.4 \div .2 = 4/10 \div 2/10 = 4/10 \times 10/2 = 2$.

From such illustrations the general rule of procedure can be deduced. But be sure they can reason it out as follows: "If I multiply .4 by 2 my answer is .8 (two times what I had before), then if I multiply by a number only one-tenth as large as 2 (or .2) my answer will be only one-tenth of .8, or .08." Of course the reverse line of reasoning will be followed in division.

Reduction of Common Fractions to Decimals

The operation of reducing decimals to common fractions is so readily understood that it is not necessary to dwell on it. The reverse operation, reducing a common fraction to a decimal, is not so readily understood. It must, however, be made clear, because it is so important in percentage. Let us consider any fraction, say 13/16. Now, it is clear if we add ciphers to the right of 13 (a

decimal point following the 13.) that we have not changed the value of the fraction, thus $\frac{13.000}{16}$ is the same as 13/16 (make this plain). If so, we will divide the new numerator 13.000 by 16 (observing the rules of decimals), and we obtain .8125. Now the rule can be deduced. See that the pupils can reason it out. Give a great deal of drill on this point.

Suggestions to Teacher

Ever remember that in arithmetic, as in music, it is easy to memorize rules and principles; but to make them such an intimate part of general knowledge that they can be applied in daily life without hesitation, days of practice are required. Let teachers give abundant exercises in writing, reading, and manipulating decimals. Long after you have alvanced to other departments of arithmetic, give such exercises by way of review. Be sure to ask often the reason underlying all operations; and emphasize the central thought of this article,—pupils are simply making a new application of fundamental principles with special reference to the significance of the decimal point.

Suggestions to One Intent on Self Advancement

A thorough-going knowledge of decimals is something you can not afford to pass over. In all callings involving mathematical training such knowledge is becoming more and more important, because of increasing use of the Metrical System. In practical life, whether farmer, mechanic, or business man, it is of increasing importance, to keep accounts, to estimate interest, to know whether your work, whatever it may be, is on a sound basis. A time of intense business activity is approaching; all operations involving finances in any way call for a knowledge of decimal relations. Do not spare yourself on exercises bringing out the points of this article, and grasp the significance of the decimal point in all mathematical calculations.

Outline for Decimals

I. Significance of the decimal point.
   1. Notation to the left of the decimal point.
   2. Notation to the right of the decimal point.
   3. Law of increase:
      (a) To the left
      (b) To the right.

II. Relation to Common Fraction.

III. Operations in Decimals.
   1. Addition.
   2. Subtraction.
   3. Multiplication. Explanation of rule.
   4. Division. Explanation of rule.
   5. To change decimal to Common Fraction.
   6. To change Common Fraction to decimal.

SUGGESTIONS ON PERCENTAGE

In general, pupils have heard so much about percentage that they think they are about to take up a difficult part of arithmetic and will have a great many new principles to master. It is therefore suggested that an effort be made to gain a truer view. In an informal talk assure the pupil that the business world has discovered so many and such practical applications of the decimal principles involved in multiplying and in dividing by a certain class of decimal fractions, that they have, by common consent, agreed to call it percentage. To illustrate further, write on the board a series of decimals for the class to read, say:

.05, .11, .08, .23, .37, .45, .63, 76

and others. When the pupils have read them, tell them that in the department they are about to take up, instead of reading the number five hundredths, eleven hundredths, etc., we use the words per cent and say five per cent, eleven per cent, etc., and that these words mean the same as by the hundred. Now explain the significance of the sign %.

Per Cent Equivalents of Common Fractions

The next important step is for pupils to become familiar with the per cent equivalents of common fractions. Write on the board the fraction you desire them to arrange in regular order in a table showing their per cent equivalents. Give them such list as

¼, ½, ¾, etc.

introducing all the ordinary fractions. The pupils readily understand that what you wish is for them to reduce the fractions to a decimal form. Thus,

¼ = .25 or 25%,

and so on. Inform them that since you are going to ask for hundredths only, if there be a remainder after the hundredths figure is reached to indicate such a remainder in a fractional form. Thus:

1/6 = .16-2/3 or 16-2/3%

or

1/7 = .14-2/7 or 14-2/7%

You give the fractions, have the pupils prepare the table. Be sure they understand what they are doing. Make this table the subject of drill. When mention is made of any ordinary fraction, the pupils should be able to give offhand the per cent equivalent; or, just the reverse, if the per cent equivalent is mentioned have the pupils give the fraction. Do not slight this drill.

Examples for Practice

It is suggested at this point that you give a series of examples first in decimals and common fractions, immediately restating the problem as a problem in percentage.

Decimal or fraction form	Percentage form
1. What is .23 of 37?	What is 23% of 37?
2. (a) 19 is what fractional form of 35?	19 is what % of 35?
(b) Reduce 19/35 to a decimal showing hundredths and fraction of a hundredth.	
3. 15 is 3/5 of what number?	
4. 26 is 13/100 of what number?	26 is 13% of what number?

After considerable drill along above lines, ask the pupils to formulate, with your assistance, rules of procedure for these three classes of examples. The value of this exercise is that without any special explanation pupils have in reality become familiar with the three cases of percentage and can explain the solution. The next obvious step is to become formally acquainted with the three cases of percentage.

Technical Terms in Percentage

The following examples are concrete illustrations embracing every problem in percentage:

(1) What is 25% of 36?
(2) 9 is what % of 36?
(3) 9 is 25% of what number?

Since these examples illustrate all problems, the numbers—9, 25, and 36—are representative of three quantities some way involved in every percentage problem. The number 25 in these examples is the rate per cent or simply the rate; the number 9 is the percentage; the number 36 is the base. In order that the pupil may grasp the real significance of what has just been stated, the instructor must at once state other problems and ask the pupils to name the rate, or base, or percentage.

Problems for Drill

Thus, James had 25 marbles and lost 20% of them, how many did he lose? What quantities are given? How is it worked? Give problems to illustrate every case, and many of them, and continue the drill from day to day, pointing out at frequent intervals that after all we are dealing with decimals and principles before considered. It soon dawns on the pupils that two of these general quantities are always given to find the third. When this point is reached, with a little assistance, the pupils are able to generalize the three cases as follows:

Case I. Given the rate and the base to find the percentage.
Case II. Given the percentage and the base to find the rate.
Case III. Given the percentage and the rate to find the base.

Solution of the Cases

Pupils whose work has been thorough will now have no difficulty in stating the steps to take in solving any of these cases. It is only necessary to refer them to fundamental principles, and to analogous examples in decimals and common fractions with which they are already familiar. It is well, however, to review that drill, give other illustrative examples, ask the pupils to determine the case involved, and to state methods of solution.

Visualizing Problems

An excellent drill is found in the use of visualizing problems, or give problems which are not expected to be worked, simply analyzed and the method of solution described. Such problems must be simple, natural problems. To illustrate, the class is before the teacher, the teacher speaks:

"Frank has 12 marbles and loses 25%. How many does he lose? Mary (one of the pupils), what is given?"

Mary. "The base and the rate."

Teacher. "Frank, what is to be found?"

Frank, "The percentage."

The questions now follow in rapid order. What number is the base? What is the rate? What case includes it? How is it solved? The pupil called on is

expected to give his answer at once; if he cannot, another pupil is asked. Vary the problems in many ways. Pupils drilled in this manner will soon be able to analyze any reasonable example in percentage, explain all the terms, and describe steps to be taken in its solution.

Outline for Study

We will now arrange the fundamental operations in percentage in an outline for convenience of systematic study and review:

Percentage

I. Quantities Involved.
   1. Base.
   2. Rate.
   3. Percentage.

II. Cases.
   1. (a) Given, rate and base.
      (b) To find, percentage.
      (c) Solution, base x rate.
   2. (a) Given, percentage and base.
      (b) To find, rate.
      (c) Solution, P. ÷ base.
   3. (a) Given, percentage and rate.
      (b) To find, base.
      (c) Solution, P. ÷ R.

Business Application of Percentage

It is now necessary, in order to give completeness to our study, to consider practical application of the principles of percentage in daily life. This is a very broad field; in one form or another we all apply them. Practically all of us have occasion to reckon interest and discount; we all need to know about insurance and taxes; we are interested in commission, brokerage, and trade discount. Farming has become a science, and the farmer estimates percentages of butter fats in milk, and keeps accounts to determine per cents of loss or gain on different crops.

Identity of Principles

It is of the utmost importance that every one interested in arithmetic, whether as teacher, pupil, or as one striving for self advancement, should clearly understand that every case of business application of percentage, no matter how labeled, is, after all, simply a special class of operations involving one or more of the three percentage cases. We urge that this table be studied; let it be placed on the board; let the pupils be so drilled on it that no matter how disguised by special names, the three cases may be made out.

In regard to Profit or Loss it should be stated that business customs often make the selling price the base, instead of the cost price. Theoretically, the cost price is always the base; practically, it may be different.

The purpose of this table is to assist pupils to visualize in the field of practical applications of percentage. It is intended to show that, however changed the names may be, the three general quantities in percentage can always be made out, and every solution asked is always one of the three general cases. Thus the table brings into connected relations with the general subject of percentage four of the principal practical applications. Reading the columns down, it is seen what names the three percentage quantities assume in the various applications; and the form in which some one of the three general cases of percentage is set forth is also shown.

Reading the columns across the page, you note in a shortened form the solution of any problem that can be made out of any situation stated in the application. This table is not something to be memorized, but to be understood; and the lesson drawn from it is that we are in every instance considering percentage and its application.

Percentage and Its Application

Application	Base	Rate	Percentage	Case 1	Case 2	Case 3
Profit and Loss	Cost Price	Rate of Gain or Loss	Money Gain or Loss	To find money Gain or Loss C. P. x R.	To find % of Gain or Loss $\frac{\text{G. or L.}}{\text{C. P.}}$	To find Cost P. $\frac{\text{G. or L.}}{\%\text{ of G. or L.}}$
Trade Discount	Listed Price	Rate of Discount	Discount	To find Discount P. x %	To find % Discount $\frac{\text{Disc.}}{\text{List P.}}$	To find List P. $\frac{\text{Dis.}}{\%\text{ of Dis.}}$
Insurance	Policy	Rate of Insurance	Premium	To find Premium Pol. x %	To find Per cent $\frac{\text{Prem.}}{\text{Pol.}}$	To find Policy $\frac{\text{Prem.}}{\%\text{ Ins.}}$
Interest	Principal	Rate of Interest	Interest	To find Interest Prin. x %	To find % of $\frac{\text{Interest Int.}}{\text{Prin.}}$	To find Prin. $\frac{\text{Int.}}{\%}$
Commission and Brokerage	Goods Bought or Sold	Rate of Commission or Brokerage	Amount of Commission or Brokerage	To find Commission or Brokerage P. or S. x %	To find % of $\frac{\text{Commission or Brokerage C. or B.}}{\text{P. or S.}}$	To find S. or P. $\frac{\text{C. or B.}}{\%\text{ Com. B.}}$

Explanation of Terms

While, as just pointed out all applications of percentage involve the same principles; yet each one introduces new terms, and the first duty of the instructor is to make the meaning of the same clear. Too much attention can hardly be given to this part of the work. In introducing interest, for example, the terms, interest, principal, rate, note, discount, etc., must be made clear; and so of each new application of percentage principles. It is very necessary that the terms used by carefully explained; and the instructor must be sure that the pupils clearly understand their significance and their equivalents in other operations. When this is fully understood, pupils will have no difficulty in solving any reasonable problem involving any application of percentage principles.

A Hint from Business Colleges

Business colleges make much of business arithmetic—that is to say, the applications of percentage to business life. They fully understand the importance of not only explaining the terms, but of making them real to pupils by making use of actual business forms. In teaching interest, bank discount, etc., regular printed forms of notes are filled out and used, thus the pupils become thoroughly familiar with them. In discount, catalogs are introduced that show net prices and discount; actual business statements are introduced containing printed terms of discount. The principle used is very simple—this procedure enables pupils to visualize the problems, it imparts interest, life, zest to their work. They now understand.

Reasons for Business Practice

Another step still should be taken. Pupils should be given the reasons for business usage. What do banks do with the money deposited with them? Pupils who can work any example given in bank discount may be utterly ignorant of the reason why banks can give discount; they may even be under the impression that money so deposited is locked in a safe to be returned when asked for. They may solve a problem in insurance; but if asked how a company can pay out several thousand dollars, when they have received only one or two small payments, they are unable to answer. The simple expedient of explaining such business proceedings and introducing real business forms gives life and reality to arithmetic work. The teacher who neglects such simple expedients is not alive to his work.

The Value of Percentage

We must not assume that the value of percentage is solely the mental drill afforded pupils. In its many practical applications, percentage touches the life of everyone. The farmer must know how to estimate the per cent of profit of various crops. The man in business makes daily use of percentage calculation in interest and discounts, commission and brokerage. The scientist must determine the per cent of ingredients used. The mechanic who aspires to some position worth while must know how to estimate the percentage strength of materials with which he works. In short, everyone who is climbing will have occasion to use percentage principles. This section has been prepared with one end in view: To assist parents and teachers in their work of directing the efforts of ambitious boys and girls to gain for themselves the rich benefits following from a practical acquaintance of the principles of percentage.

RAPID CALCULATION

In this section we are to consider some methods of rapid computation. It is not our purpose to increase knowledge of fundamental operations in any department of arithmetic; but we desire to point out means of acquiring greater facility in use of knowledge already gained. One can easily learn the notation used in music and the names of every key on the piano, but one is very far from being able to bring music from the instrument. That requires weeks, months, and years of practice.

Number Drills in Addition

It is said that fully half of the mechanical work in arithmetic is connected with addition and that the majority of errors occur in such work. The liability to err can be overcome by practice, by drills in addition. Do not imagine such work unimportant; it goes to the roots of the matter. Those who have never had the benefits of such drills have neglected a most efficient means of self advancement; such drills stamp number relations on the brain. Proficiency in addition is declared to be more important than a knowledge of multiples, measures, interest, percentage, stocks, etc.—all combined—for such proficiency is the key-stone of the arch on which those operations rest.

Mental Force

That statement, however, only enumerates a small part of the advantage of systematic number drill in addition. Every mental faculty is strengthened, just as every form of gymnastic exercise affords strength to the athlete. There is a sense of increased confidence, of mental alertness, of reliance on conclusions formed. Men of affairs, those in the front ranks of business, distinguished in all walks of life are noted for the possession of such qualities; for they sum up as executive ability, quickness of perception, promptness of decision, strength of performance.

What Is Desired

It is not intended to make lightning calculators of pupils, but to render them so efficient in addition that they see number values almost at a glance; such a result strengthens every mathematical fiber of the brain and prepares for efficient work in life. Never in history has it been more impartant to do all in one's power to advance in this way.

Not Difficult

There is no secret about the course to be pursued: faithfully practice such exercises as the ones that follow. You will vary them by original groups of figures. Teachers, of course, will find room for such exercises in their school work; we urge others to devote a few minutes as often as possible to similar drills. In a short time improvement will be noticeable, you will be surprised at the results; but even should you not become as expert in addition as you wish, the drill will prove of great value in other ways.

Method Employed

Begin by setting down columns of figures as follows:

3	4	6	8	9 =
2	8	5	5	8 =
8	5	7	4	7 =
9	2	8	3	5 =
7	9	3	6	6 =
6	3	9	7	4 =
—	—	—	—	—

Add the columns up, add them down, add them from left to right, from right to left. Vary the exercise by putting down longer and longer columns. Do not allow yourself to hesitate a minute; if you do, start over again. You will soon become so proficient that instead of adding each figure, your eye will catch the sum of groups,—at first two, then three, then more. For instance, take the right hand column; instead of adding each figure,—4, 10, 15, etc.,—your eye catches the sum of the first two, but even as you mentally say 10, your eye has caught the sum of the next three and you mentally say,—10, 30, 9. In fact, you will have no difficulty in adding four or five figures at once; just as when proficient in reading you can read several words at a glance. Do not slight such a work; your entire mind is becoming alert.

Two Columns at Once

But we can, with little experience, add two columns at the same time as easily as we generally add one. That is a saving of time and increases your power. Let us consider such exercises as the following:

24	26	35	53	37 =
12	36	44	48	23 =
32	43	36	37	39 =
19	27	18	40	47 =
—	—	—	—	—

Take the right hand column again. Say 47, mentally add thirty and say 77, mentally add 9 and say 86, and so on. It is not at all difficult. Let us see,—47, 77, 86, 106, 109, 139, 146. A few weeks' drill will make one very proficient. You could add columns of three figures each on the same principle, but the numbers rapidly become unwieldy.

Reward of Perseverance

We suggest that teachers make extensive use of such exercises; have them for all arithmetic classes, no matter how advanced the pupils may be. And all who are striving for self advancement should devote some time to such drills every day if possible, certainly very often. There is not a position in life that you can not fill more acceptably as a result of such a course. We suggest the following test:

127	996	237	386
375	320	949	463
953	778	486	827
333	886	987	240
325	913	354	616
911	164	600	261
554	897	744	755
167	972	195	833
554	119	234	959
—	—	—	—

When you begin this course of drill, add the above columns of figures as rapidly as possible. Make a note of the time it requires. After you have pursued the course suggested in this section for one month, prepare four other columns of three figures each and note gain in speed, and increased confidence in the results reached. That is a measure of your growth in mathematical power. After you have spent some time on addition exercises, you will be prepared to make a study of methods for rapid multiplication.

The End Sought

Do not miss the point sought in these suggestions. We are not seeking to develop power of analysis, they are not problems to be solved. We wish to develop speed and accuracy in adding columns of figures. The exercises here given are sample exercises only. Let the teacher prepare a great many such exercises; let the pupil desiring to increase his efficiency make generous use of similar exercises. While the object is to develop speed, it is not necessary to remark that accuracy is a prime necessity. If you find that the results reached are not accurate, you must slow down your work. Speed must not outstrip accuracy; but practice will give the proficiency in both directions.

Rapid Multiplication

Multiplication and addition are the fundamental operations in arithmetic that most intimately concern daily business. We have considered the attainment of speed and accuracy in addition. It is well to make a study of rapid methods of multiplication. As in addition the value of these methods is two-fold,—there is a gain in speed, but, more important, a more realizing sense of number relations. In music the student spends many hours in exercises that are not productive of very musical results; but they afford needed drill and so strengthen musical faculty that the student plays with feeling and effect.

Of Practical Use

But there is a very practical side to these number drills. There is a real connection between speed and accuracy. Speedy results require an alert brain, and such a brain makes for accuracy. That this is not theory is shown by a reference to successful accountants, responsible bookkeepers, men who have to deal with transactions involving large figures. Most of them are not only familiar with methods of rapid calculation and employ them in their work, but they very often use them for self-drill, just as the successful musician daily practices finger exercises.

To Multiply by Two Figures at the Same Time

27	147	213	319
23	29	37	45

Consider such a series of multiplication as this table calls for. Why not write the result down at once? Practice will enable you to do so. We illustrate with the problem on the right. $5 \times 9 = 45$. We put down the 5 and reserve 4 to carry. Now, $(5x1) + (4x9) + 4$ (which is carried) yields 45. Put down the 5, carry 4. $(5x3) + (4x1) + 4 = 23$. Put down the 3, carry the 2. $(4x3) + 2 = 14$. You have the answer, 14,355. All the operations we have indicated are to be done mentally. Study the operation; observe it is simply a shorthand contraction of the old method with which you are familiar. Consider the second problem on the right. Write the answer, 7881. You will have to feel your way at first. By practice, you will soon be able to multiply any number by two figures; writing the answer down as you proceed.

Advantages

What have you gained by such a result? Time, of course, but what more? You have performed mentally for each figure in the answer one or more multiplications and additions; not at all difficult, but note the mental drill. Your

mind has had to be alert, you have been obliged to concentrate your attention. If you were to practice on such problems, say fifteen minutes daily, there can be no question of increased mental strength; such a result follows as certainly as physical strength follows daily gymnastic exercise. And in addition you gain technical skill in manipulation of numbers. An interesting variation of this exercise is to prepare tables of squares. You will soon be able to write down the square of any number of two figures. Thus, the square of 63 is 3969; of 47, 2209. In preparing tables of squares, however, one will quickly note methods for abbreviating the general method. It is splendid exercise to make a note of all these further methods and apply them in practice.

Short Cuts

Short cuts, as the name indicates, are methods by which solutions can be shortened. They are too often regarded as simply tricks with figures, devoid of sound basis; consequently something to be avoided by the true teacher. But the practical value of approved short cuts is admitted by prominent educators. We will enumerate some of them. One precaution must be observed,—care must be taken to introduce a short cut only after the long process is thoroughly understood. Further, whatever short cut be used, it must be capable of a rational explanation; it should be a step that tends to a deeper knowledge of number relation.

Economy of Time

First, a short cut reduces the time and labor required in the mechanical work of the solution. That, however, is only the obvious advantage. What many fail to see is that every short cut worthy of the name affords increased mental drill, because it gives deeper insight into number relation, and at same time increases interest. This makes for mental alertness that, in turn, conduces to accuracy.

Illustration

Let us take a concrete example and work it by the usual method and then by a short cut:

What is the product of 5423 x 279?

Usual method:	Short cut:
5423	5423
279	279
48807	48807
37961	146421
10846	1513017
1513017	

In the short cut operation we first multiplied by 9 and then that product by 3 (really 3 x tens, or 30) because 27 is 3 times 9. In the short cut, we saved one multiplication. The pupil who sees the reason underlying this short cut method and practices it gains in mental alertness. It is accordingly suggested that examples be given in the working of which this principle can be employed and the pupil urged to habitually scan the multiplier to discover such cases. Work the following:

3173	3695	14316	27849
364	355	546	497

To Multiply by Aliquot Parts of 100

This is a method much in favor in commercial colleges preparing students for a business career. We will give a concrete illustration of both the usual method and this short cut, and then discuss the case.

What is 16-2/3 times 96?

Usual operation:

96
16-2/3
576
96
64
1600

Short cut:

6)9600
1600

Explanation

16-2/3 is an aliquot part of 100,—that is to say, its value compared with 100 can be expressed in a common fraction. In this particular case, the relation is expressed by 1/6. If, then, we were to multiply a number by 100, we would obtain a product six times greater than if we multiplied by 16-2/3. To multiply by 100 is very simple,—annex two ciphers. Instead, then, of multiplying by 16-2/3 (a long process of multiplying) why not simply annex two ciphers and divide by 6? It is much shorter, but absolutely correct. Do not proceed until this explanation is perfectly clear.

Making it General

But this is only one instance. There are many other numbers also aliquot parts of 100. In the majority of cases, doubtless it would be easier to follow this method. Accordingly, the next step is for the pupil to prepare a table of aliquot parts of 100. Let us, therefore, make a table showing the aliquot parts of 100 by which many numbers, whole and mixed, can be expressed.

8-1/3 =	14-2/7 =	33-1/3 =	62-1/2 =
11-1/9 =	16-2/3 =	37-1/2 =	75 =
12-1/2 =	25 =	50 =	87-1/2 =

This table when filled out is to be memorized, for the fractional forms can be used as short cuts in many computations. The rule should be deduced:

Annex two ciphers and multiply by the fraction expressing the aliquot part.

It will be observed that in multiplying by such a number as 37-1/2, the aliquot part of which is 3/8, we not only annex two ciphers, but multiply by 3 and then divide by 8.

Examples to be Worked

It is now well to drill on many problems like the following:

Find the cost of four dozen articles at 33-1/3 cents each.

Find the cost of 77 articles at 14-2/7 cents each.

This drill must be continued until the pupil is thoroughly familiar with this method. It is evident that this drill is not only practical; but it tends to increase interest, alertness, and accuracy.

Short Methods for Computing Interest

After the pupil thoroughly understands the practical application of percentage to determine the amount of interest due on notes, it is well to consider rapid methods of calculations. All arguments in favor of rapid methods apply with increased force to interest calculation, since the business world makes such extensive use of them.

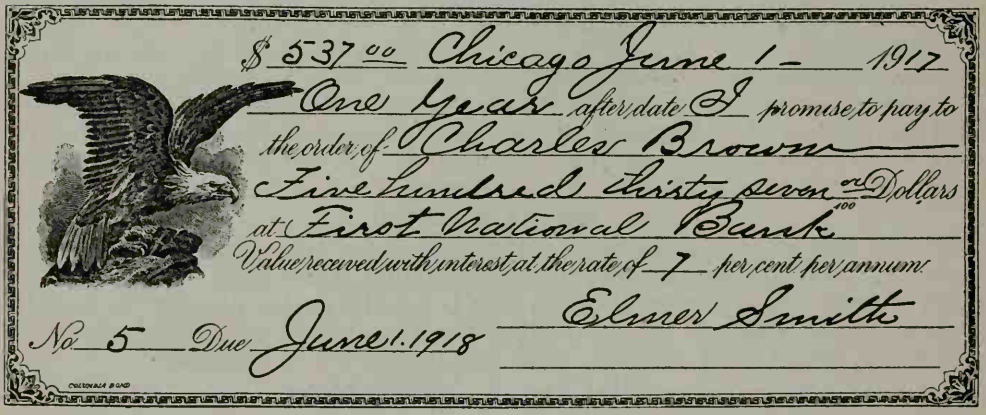
The Six Per Cent Method

Six per cent is a rate of interest that readily lends itself to rapid calculation. All recognize that if we obtain the interest at 6 per cent, a rate of 5 per cent would be 1/6 less; 4 per cent, 2/3 of the 6 per cent amount, 7 per cent, 1/6 more, and so on for other rates. The first step then is to find the interest at 6 per cent. Make use of the following:

Rate of interest, 6 per cent.

Interest on $1.00 for 1 year	= $.06
Interest on $1.00 for 1 month (1/12 of a year)	= .005
Interest on $1.00 for 6 days (1/5 of a month)	= .001
Interest on $1.00 for 1 day	= .00-1/6

We will apply the above in determining the amount of interest due on the following note, which was paid August 12, 1918.


$537.00 Chicago June 1 1917

One Year after date I promise to pay to the order of Charles Brown

Five hundred thirty seven 00/100 Dollars

at First National Bank

Value received with interest at the rate of 7 per cent per annum

No. 5 Due June 1. 1918 Elmer Smith

On inspection we find the time to be 1 year, 2 months, and 12 days. From the above table we determine that the interest on $1.00 for
1 year, 2 months, and 12 days at 6 per cent is.....$ .072
Then the interest on $537.00 for the same time
at 6 per cent would be..... 38.664
But as the rate of interest is 7 per cent, we must add
1/6 of the interest at 6 per cent, or..... 6.444
Consequently the answer is.....$45.11.

The Banker's Method

We will re-work the foregoing example by what is known as the Banker's method, and after noting the great saving in work, we will explain the method.

$$\frac{537\times432\times7}{36} = 537\times12\times7 = 45108 = \$45.11 \text{ Ans.}$$

In the above operation, 432 is the number of days for which interest should be computed, but a year is reckoned as 360 days, since that is the banker's method. We have indicated the fact, that we are to multiply the principal by the number of days, that product by the rate per cent of interest, and that we are to divide the final product by 36. To perform the operations indicated, we resorted to cancellation and pointed off three places in the answer.

Explanation

Any principal at 1 per cent a year will double itself in 100 years, or 36000 days—reckoning 360 days to the year. Then if we multiply any principal by the number of days (360 to a year) and divide by 36000, we would have the interest on that principal for the given time at 1 per cent. Multiplying by the rate per cent, will then give us the answer. We shorten the solution by indicating the operations, and resorting to cancellation. Instead of dividing by 36000, we divide by 36 and point off three places in the answer (which is the same as dividing by 1000). This explanation is not at all difficult to understand. Do not proceed until it is clear.

Illustration

What is the interest on $319.00, for 2 years, three months, and 18 days at 4 per cent? By any of the usual methods, this would be a long example. Apply this method (time equals 828 days).

$$\frac{319\times828\times4}{36} = 319\times23\times4 = 29347 = \$29.35 \text{ Ans.}$$

Solve the following problem by this method:

Frank, being anxious to buy a colt, borrowed from his friend, William, June 1, $76.50, agreeing to pay 9 per cent interest. He paid his note September 18, following. How much interest did he pay?

In this example, how many decimals will you need to point off?

Summary

In this section we have endeavored to impress on the readers the value of drill on methods of rapid calculation. Bear with us if we seem to unduly emphasize this point. Arithmetic so vitally concerns us; its principles are of such general applications in daily life, that number relations should become an intimate part of our mental equipment. In the new age now opening it will be doubly necessary that every faculty of the mind—every mental muscle—be strengthened for the contest awaiting us. The value of these exercises is the drill they necessitate. We have compared them to finger exercises in Music. They are intended to render mental muscles quick in response to calls made upon them. We urge all to make generous use of the suggestions given, assiduously practice them, and seek for new methods of application.

PROBLEMS

We need problems to vitalize arithmetic; to show practical application of the computations pupils have been making; to afford mental discipline, and to arouse interest. Many problems are given in all text books; some are true to life, others not. In any event enthusiasm and interest would be aroused by the use of original problems true to the conditions of life surrounding the pupils. Problems suitable for rural schools, may not possess any interest to pupils in town schools. It is self evident, that in order to realize the greatest value from problems they must be such that the pupils understand and realize that the situations expressed may be possible in their surroundings.

Source of Problems

With a little thought problems can always be made from situations actually existing in the home and school life of pupils and from local activities. Are pupils living on a farm? What per cent of the land is cultivated? What per cent of the total number acres is the home farm of each individual scholar? Is farmer A. building a silo? What are its dimensions? Its capacity? Crop reports can be drawn upon; the statistics in the state graphics can be used. What per cent of the area of New England is the state in which the pupils live? Possibly, in the homes of some of the pupils a room is being papered. Let them estimate the cost of papering. Send them to the local store to learn price of paper, width of rolls, and cost of work.

Pupils Originate Problems

An exercise of great worth is to ask pupils to complete problems you give them and to originate new problems. They cannot do this unless they clearly understand number relations. The mere invention of a problem gives them a deeper grasp on the principals involved. Give them such outline as:

(1) The distance from Chicago to Dixon, Illinois, is 100 miles. Make up three problems concerning the running of a passenger train on the Northwestern Railroad involving this fact—one for each case.

(2) Farmer A. sold wheat at $2.00 per bushel and invested a part of the proceeds in bonds of the Third Liberty Loan. Originate several problems covering these facts.

Pupils cannot do this work unless they can visualize the situation and have a grasp on number relations.

Solution of Problems

Pupils are allowed to form bad habits of thought when solving problems. They should be trained to:

(1) Grasp the situation; visualize the problem; determine what quantities are given; what are to be found.

(2) Form a definite plan of procedure to be followed in solving it.

Illustrations

Let us suppose a simple problem is given, for example, the following:

"Mr. Jones accepted a position in Chicago at a salary of $1800 a year. After getting settled in Chicago, he had left $2500 in bank stock that paid him 3½% dividend semi-annually. What was his income for the year?"

The pupils must be trained to answer at once the questions:

"What is given?"

Answer, "The salary and the stock on which the dividend is paid and the rate of dividend."

"What is to be found?"

"The total income."

"What is the plan of work?"

(1) Find the dividend for 6 months.

(2) Multiply by two for the year.

(3) Add the salary to determine total income.

Only an Illustration

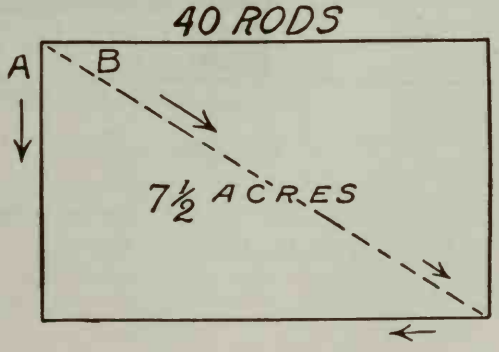
That is an illustration. If pupils have been given previous drill they visualize the conditions of a problem in some way; this enables them to understand the problem, and the method of solution becomes clear. Drill of this nature, then, is needed. Begin early in arithmetic work to ask such questions, frequently return to similar questions until this mental habit on part of the pupils is formed.

Necessity for Clear Visualization

It is self-evident that any solution of a problem on the part of a pupil who does not clearly visualize it is largely a matter of chance. The problem is devoid of any drill of value to him. So, in many ways, the pupils are to be trained in methods of visualization. One has just been pointed out. Faithful work along this line will prevent mental confusion when considering problems. Such drill tends to habits of thought that make for sound judgment; a result as important as the mathematical drill involved in the solution itself.

Diagraming the Problem

If pupils can draw a diagram to illustrate the conditions of a problem the probabilities are they can see how to solve it. This method is of great assistance to make clear problems in which areas are concerned. Let us consider this problem:



A and B are standing at the corner of a rectangular park one side of which is 40 rods. The park contains 7½ acres. A starts to walk around the park, B crosses it diagonally to the other corner and turns to meet A. How many feet will he walk on the side before he meets A, provided they walk with equal rapidity? That would confuse the average pupil until he draws a rectangle to illustrate it. This principle applies in all arithmetic problems,—unless a problem is clear, draw some diagram to illustrate the condition. The mere drawing of

a diagram is often as good an exercise as solving the problem, for it presents vividly to the mind certain mathematical facts. Query. Where do the parties meet in this problem?

Graphics

As all know, a favorite method of writers desiring to exhibit statistical facts is a resort to graphic representation. This tendency is noted in popular studies, in magazines, and in argumentative writings. Modern geography usually expresses quantitative facts concerning population, areas, exports, imports, products, etc., by means of diagrams and graphics. Facts expressed in tables of figures exert but a feeble impression on the mind compared with the same facts expressed graphically. Let us illustrate:

Principal Industries of New York in millions of dollars.

Packing House Products	$126,000,000.00
Printing, Publishing, etc.	205,000,000.00
Foundry and machine shop	155,000,000.00
Men's clothing	255,000,000.00
Women's Clothing	259,000,000.00
Bread, etc.	78,000,000.00

Graphic Representation of the Above

Example

Such graphics are properly regarded as exercises in arithmetic, and progressive schools are introducing them. Pupils find such exercises very interesting and instructive. Make charts for the following facts:

According to the Kansas State Board of Agriculture, the following figure (the nearest million) is the value of some of the agricultural crops of Kansas for 1917.

Winter and Spring Wheat	$ 86,000,000.00
Corn	121,000,000.00
Alfalfa	57,000,000.00
Oats	37,000,000.00
Sorghum	28,000,000.00

Make a similar chart for your own state.

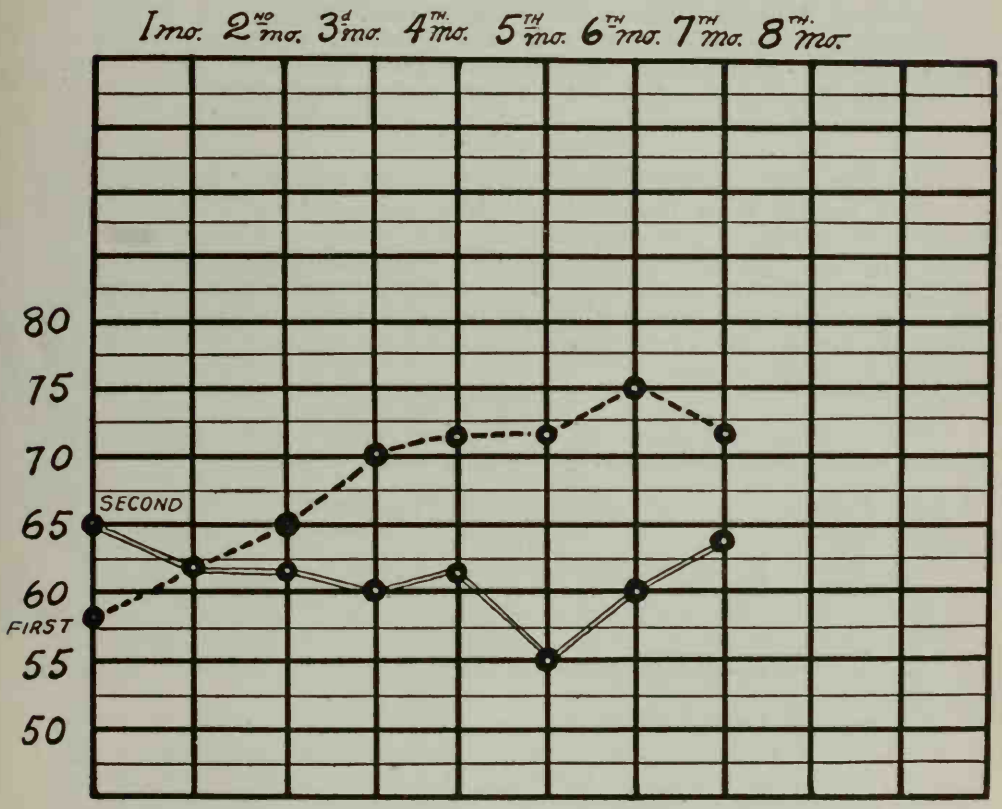
To Plot a Curve

Another arithmetical devise now coming into quite extensive use is to plot a curve that shall graphically represent the history of interesting facts from number statistics. To illustrate:

The records of two pupils in arithmetic during the school by months for one year were as follows:

First	58.	62.	65.	70.	72.	72.	75.	73.
Second	65.	62.	62.	60.	62.	55.	60.	64.

Represent the progress of the two pupils.



A number of interesting conclusions can be drawn from these curves by the pupils themselves. The first pupil has had a successful year's work. The second pupil can see that while he has learned something about more arithmetic topics, he does not really understand them.

What is the remedy?

Suggestions

Let pupils make similar curves for their own standing. Make curves for several different studies. All this is an exercise in arithmetic. Let them make graphics for the fluctuation in the weather as shown by newspaper reports; or of the changing price of commodities given in market reports. The opportunities for exercise are countless. Now, notice the practical results,—pupils are learn-

ing more about the quantitative relations of numbers; they see more in the figures published daily concerning exports, products, cost of municipal and social enterprises, athletic exercises—in short, numbers and arithmetic become more real to them.

Farm Arithmetic

Attention has been called to the importance of formulating problems that can be applied to the life and surroundings of the pupils. The majority of pupils are found in small towns, villages, and rural schools. There is a wealth of material for problems perfectly applicable to such surroundings awaiting the resourceful teacher. Yet, the majority of text books persist in asking such pupils to find the profit of a broker in some transaction involving stocks and bonds that have no meaning to the pupils; or perhaps giving some problem of a commonplace nature, as "what would be the proceeds of a car of swine, of such a number, and average weight at such a price per hundredweight?"

What Is Needed

There are many problems that provide splendid arithmetic drill and at the same time may be made the means of impressing agricultural information of the greatest worth. Teachers introducing such problems often discover that they are literally "eye openers"; that there is a sudden and great increase in interest that is not confined to the pupils but includes the homes of the community. This is regarded as so imporant that special text books are often used. The resourceful teacher can introduce similar problems as part of his work in connection with any text book.

Examples

The following table shows the per cent, by weight, of the three principal mineral foods extracted from the soil by some of our principal crops.

Crop	Nitrogen	Phosphorus	Potassium
Corn	1.9	0.7	0.4
Wheat	2.4	0.9	0.6
Oats	2.1	0.8	0.6
Timothy	1.3	0.5	0.9

1. How many pounds of each constituent is extracted from the soil when you raise one ton of corn? Of wheat? Of oats?

2. Please find from Mr. Smith (a prominent farmer) how many bushels of wheat he raised last year. How much of each of these ingredients was taken from his land by his wheat? (The weight of a bushel of wheat is 60 pounds.)

But the first 8 inches of the average soil contains the following amounts of these ingredients per acre in pounds:

Nitrogen, 3.053; Phosphorus, 4.219; Potassium, 16.317.

The average crops per acre of these crops in bushels and tons are:

Corn, 29.4; Wheat, 14; Oats, 28.6; Timothy, 1.1.

How long would it require for successive crops of wheat to exhaust the nitrogen? Of each of the other crops? (For weight per bushel see common measures.)

The opportunities for such problems are limitless. Perhaps the boys belong to a corn club? How much of each ingredient did each one's crop extract from his acre? Then, problems can be worked up concerning crops on each farm.

A Graphic Problem

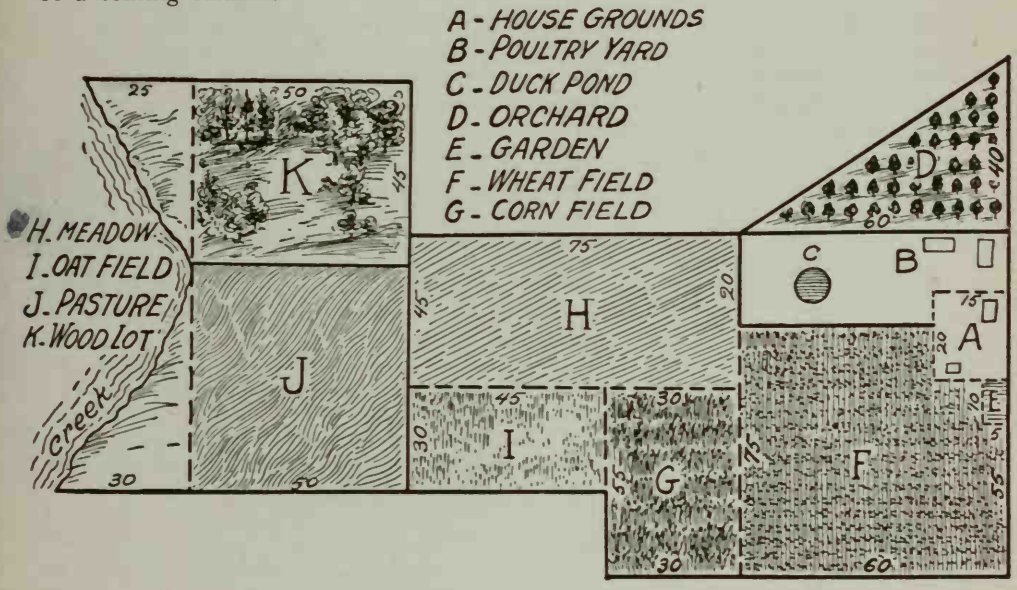
Assume that in the year 1918, the principal crop of United States were:

Wheat	1,000,000,000 bushels
Corn	3,000,000,000 bushels
Oats	1,500,000,000 bushels

Make a graphic representation of the mineral constituents extracted from the soil of the United States in 1918. (This is only partial since large amounts will be required for other crops.)

A Diversion

At this point is disclosed one of the extremely interesting diversions that the resourceful teacher must be quick to utilize. Such facts as above represented come home to all with startling emphasis. The amount of mineral wealth in the soil is limited. What shall the United States do as a nation, each farmer as an individual, to replenish the fertility of the soil? Fears have been expressed of a coming famine.



Fertilizer

Speak of the subject of fertilizers in connection with the article on agriculture (also refer the pupils to "nitrogen" P. 2042, and clover, P. 628). Refer also to the graphic discussion of Nebraska and California for potassium supplies and make search for information concerning the enormous nitrogen fixing plant being built by the government at Muscle Shoals, Alabama (See graphic discussion of Alabama). All this will prove an extremely interesting addition to arithmetic work.

Farm Measurements

It is impossible to do more than suggest one or two directions in which problems true to home surroundings can be formulated, possessing great interest to pupils in rural sections. Problems in connection with farm areas and farm buildings are abundant. Have pupils prepare an outline map of their home farm,

or that of some prominent farmer. Instruct them to draw it to a scale. They can measure distance in several ways; use a tape measure or a pole on which they can mark off a half, or a full rod; or employ careful pacing, if no other method presents itself. The result may be somewhat like the foregoing:

The Problem

The problem now is to determine the number of acres in the farm. Prepare a table showing area of each field and the area of the duck pond. The dotted lines give a hint of the method of procedure,—divide the fields into plane figures whose shapes suggest methods of solution that have been considered in the pupils' work in mensuration. Allow sufficient time for the full solution of such a problem. It may take weeks. Insist on neatness of work. Depend upon it, such a problem will indellibly fix in the mind principles in mensuration otherwise soon forgotten. (Estimate diameter of duck pond. The small figures giving the dimensions of the fields are rods.)

Farm Silos

Silos are now almost a farm necessity. Perhaps one is building in the neighborhood. Many live problems at once present themselves suitable for advanced classes that will tend to fix in the minds of pupils principles they have learned in regard to the area and contents of cylinders, since the general form of silos is circular.

Pupils should be given such facts as these:

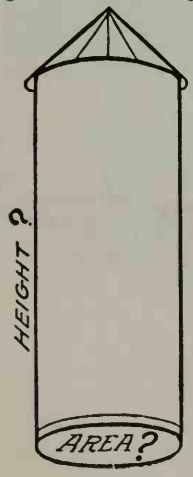
1. In a well packed silo about 50 cubic feet of space must be provided for each ton of silage required.
2. A feeding surface of about 5 square feet should be provided for each cow, if it be a dairy herd that is to be fed.
3. The diameter of the silo, then, should be in keeping with the number of cows; the height of the silo in keeping with the amount of silage to be provided.

Problems

Mr. Smith wishes to build a silo to provide for 40 cows. Disregarding fractions of a foot, what would you suggest as a convenient diameter for the silo?

He wishes to provide sufficient silage to feed his cows an average of 40 pounds daily for 180 days. Again disregarding fractions what would you suggest for the height of the silo?

Solution



The pupils should visualize the problem by drawing a silo. From what has just been learned of general requirements, the area of the base of the silo is known, what is it? Having the area of the circle, how do you determine the diameter? (Refer to the discussion of a circle.) If you divide the area of the circle by .7854 you have the square of the diameter (why?). Then if you take the square root of that quotient, you have the diameter required. In this way the pupils find the answer to the first question to be—what,—12, 16, or 20 feet? (Remember this is the nearest full foot. Prove it.)

Second Problem

In answer to the second problem, the pupils find they must provide a silo that will hold 144 tons (prove this statement), or from the principles stated, it must contain 7200 cubic feet (prove this statement). Knowing the area of the base, they determine the height to be—what,—30, 36, or 40 feet?

Suggestion

In a similar way, many problems referring to silos in the neighborhood can be formulated,—all practical, all possessing home interest for the pupils. Be sure and formulate real, concrete problems, suitable to home conditions for pupils in advanced arithmetic. What is the capacity of the water tank to their windmill? Or of their cistern? What are the cubic contents of the haystack in their meadow? How much corn will their cribs hold? If they have no farm, apply the same problems to Mr. Smith's farm.

Problems Connected With Dairying

Dairying is practically universal in this country. A very large number of intensely practical problems suggest themselves to observant teachers, and no better means can be suggested for arousing interest in arithmetic than to formulate such examples. In this case, the entire neighborhood, at least in rural communities, shares in the aroused interest. This expedient is so successful that in some states a Babcock milk tester is considered an almost necessary part of the school equipment. (See 1847.)

How Used

The Babcock milk tester is a simple, cheap, but effective device by the use of which in an easily tried experiment at school, the per cent of butter fat in a sample of milk can be read off on a graduated scale. Pupils are urged to bring samples of milk for testing purposes from home. Pupils should be told that cows vary in the richness of the milk they yield. The quality of milk cannot be improved by the feed given, but the quantity of milk can be increased. The average milk of the average cow contains by weight about 3.7% butter fat, that of a good dairy cow is 4.7% ; but in judging the value of a dairy cow, one must consider both the quantity and the quality of the milk.

Some Problems

Mr. Smith keeps two cows. The following is a record of their milk yield:

First Daily yield in pounds 40, % of fat 3.7
Second Daily yield in pounds 30, % of fat 5.2

Which is the more valuable cow?

If Mr. Smith uses all the milk of those two cows for making butter, and butter is worth at his market 35 cents per pound, what would each cow earn in six months (180 days)? But it is necessary to say that about 1/6 of the weight of butter is water which must be considered.

When Feed Is Considered

Mr. Jones has six cows. He kept a record of cost of feed, weight of milk, and percentage of butter fat. The fat was made into butter. The following is the record:

	Cost of Feed	Milk Produced	% of Fat
No. 1	$44.24	8.028 lbs.	4.9
No. 2	47.05	9.739 lbs.	3.2
No. 3	41.24	2.829 lbs.	5.6
No. 4	52.06	11.165 lbs.	3.8
No. 5	44.34	5.458 lbs.	3.6
No. 6	49.08	10.794 lbs.	4.1

His average market for butter was 25 cents per lb. He decides to dispose of half of his herd, which ones shall he sell?

BUSINESS ARITHMETIC

All arithmetic is properly business arithmetic since its purpose is to prepare pupils to understand the necessary calculations of daily life. In every study we seek for discipline that strengthens mental muscles, even as daily exercise strengthens the athlete; but life is becoming intense, and the demand is for drill that shall contribute to some useful purpose. The finger exercises in music not only strengthen the muscles of the hand, but enable the performer to produce pleasing melody.

Modern Development

Thus it is that the Practical Arithmetic of earlier years has given place to Business Arithmetic of today. That is to say,—we study the application of the fundamental principles of arithmetic to the needs of daily business life. This concerns us all for we are selling our time, labor, or products, in one form or another; and buying the time, labor, or products of others. If arithmetic can be so treated that it will enable us to better understand this exchange, to better perform our parts in it, we must make a study of this new departure.

What Is Business Arithmetic?

We have already made practical application of these principles. Rapid Calculation is a part of business arithmetic since the end sought is alertness of mind, quickness of perception, readiness of manipulation; in short, to do for the mathematical powers of the mind what hours of weary practice do for the untrained musician,—develop efficient performance, and enable one to grasp the essential points in arithmetic problems and to proceed by the most direct methods to the required solution. In Problems we considered methods by which problems directly applicable to home life and home surroundings could be formulated that would enable one to discover possibilities generally unnoticed in daily life. In both cases our work belongs to the highest form of business preparation.

Business Forms

In progressive schools business forms are now taught to pupils in arithmetic classes because such knowledge appeals to pupils as a necessary part of practical education. It is asserted, that this method secures maximum attention and concentration from pupils, and leads them to perform work with greater care than is bestowed upon topics that do not appeal to their sense of the practical.

What Forms Should Be Taught?

Every necessary and commonly used business form should be taught to pupils in advanced arithmetic classes. It is far more necessary that they should gain a knowledge of these forms, the terms used in connection with them, be able to check the arithmetic operations indicated, than to be drilled on many arithmetic operations that in no way concern their daily life. The following are some of the forms to be studied:

1. **Bills** for articles purchased, receipted in full, or on account, or with payment on account leaving a balance; bills showing a discount, or a discount series, or showing credit items allowed; bills for labor or services rendered.
2. **Invoices.**—A memorandum of shipments showing quantity, quality or style; cost, mode of shipment, etc. Explain how to check invoices, what to do when an error is discovered, difference between an invoice and a bill.
3. **Monthly Statements.**—Purposes of a monthly statement; not necessarily a dun. Explain why one statement does not repeat the records of the preceding statement; why a statement does not repeat the items constituting the bill or invoice.

4. **Orders.**—What orders should show as,—date of order, quantity and style of goods ordered, mode of shipment desired, destination of goods. If ordered from a catalog, the catalog number must be given. In many cases the terms on which goods are ordered should be set forth.
5. **Receipts.**—Receipts should show whether in full of account, or on account, or a receipt for merchandise, or produce; also explain how to fill out stubs in a receipt book.
6. **Checks.**—How to fill out the stub, necessity of dating, clearly specifying to whom paid, clear statement of amount, endorsements, a certified check, how to make it serve as a receipt. Payable to bearer, to cash, to self. Protests on checks.
7. **Drafts.**—Form and classes of drafts, the terms used, acceptance. Procedure when a draft is presented.
8. **Deposit Slip.**—Drill in filling out deposit slip showing bills, specie, and checks ready to deposit.
9. **Notes.**—Discussion of the forms of notes. Necessity for dating, must be for money, a definite amount; payable to some definite person; payable to the order of, time when due indicated. Note on demand. Interest rate stated, endorsement, etc.
10. **Inventories.**—Household goods, a farm inventory, merchandise in store.
11. **Insurance Policies.**—Fill out policies, explain terms, etc.

In connection with these forms, the elements of business correspondence should be introduced. This can be done in considering orders, invoices, bills, etc. Let no one question that all this is a part of advanced arithmetic, since it has to do with arithmetical calculations, and, further, pupils recognize its practical nature. The tactful teacher will encourage pupils to apply this knowledge personally; to keep accounts of receipts and expenditures; to assist his parents in making out bills, checks, etc. Such methods assuredly prepare pupils for business life.

Introduce Real Forms

As far as possible introduce real forms; but pupils should also be instructed to rule and prepare forms of their own. In the main, real bill heads, notes, checks, etc., are to be used. Firms do not use bills identical in form, neither are arrangements of items on checks always the same. In any town forms actually in use can be obtained.

Business Reason for the Forms

Wherever possible give the pupils reasons for the wording and arrangement of business forms. Why are checks and stubs numbered? Write (to illustrate)

Eighty-one and 37/100 ———— Dollars.

Why not express it in this way $81.37? Why is the same amount repeated in figures? Why should one begin by writing Eighty-one close to the left edge of the check? Why use 37/100? Why is there a line between the amount and the word, dollars? In general, explain fully about the wording and arrangement of all business forms.

Method of Procedure

The more of personal application that can be given to exercises of this nature, the more interest aroused. A method that gives good results and one that can be varied by individual teachers to agree with local conditions is here suggested. Secure lists from local merchants representing different lines,—groceries, general store, drug store, etc.,—with prevailing prices, and names of wholesalers from whom to order. This course is suggested since it clothes the entire series of operations that follow with an air of practical life. The teacher is to make up different sample orders, representing different lines, with varying

terms, and assign one such problem to each pupil which he is to carry through the following series as his or her individual exercise. Insist on neatness of work, clean paper, neat writing, and figures, free from blots. Each pupil should keep his series of papers in a large envelope.

Model

The pupils will either use the blank forms they may have, or rule one as below, and place on it the following suggested bill of supplies; they will write in their own name and address. After careful study this form will serve as a model for their individual exercise.

No. A-347.

JONAS AND CO.

Dealers in

STAPLE AND FANCY GROCERIES

Chicago

Terms
2/10 N. 30

Sold to John Smith,
Smithville,
Ills.

1918

June	1	1 Case 25 lbs. Macaroni	$ 2	50		
		1 Case Acme Peas.....2 Doz. @ $1.40	2	80		
		1 Case Shredded Pineapple.....	2	60		
		10 Sacks Yellow Corn Meal.100 lbs. @ 5c	5	00		
		1 Doz. Pkgs. Seeded Raisins.....	2	00		
		3 Sacks Gran. Sugar..300 @ $7.10 Cwt.	21	30		
		2 Boxes Dried Apples...50 lbs. @ 9½c	4	75		
		6 Cases No. 2 Algona Beans 12 Doz. @ $1.50	18	00		
		C. & N. W. Freight B/L enclosed			$58	95

Explanation of Invoice

Strictly speaking, only Jonas and Co. would call the above an invoice, the party receiving the goods would call it a bill; but business usage now speaks of it in both cases as an invoice,—especially when the purchase is an important one. Observe that full details of the transaction are given—the date and manner of shipment, the terms of sale, the quantities, price and totals. The number given on the invoice is for the guidance of Jonas and Co. who have preserved a carbon copy for filing purposes.

What the Purchaser Does

When the purchaser receives the goods he takes his invoice and inspects the goods to see if he has received the number and quality of supplies ordered. If such be the case, he places a check mark to the left of each item in the invoice. He next checks the invoice by items, comparing same with his order, to see if the prices and totals are correct, placing a check mark after each total in the several columns. It will be noticed the grand total is placed one column to the right; it is said to be extended.

In Case of an Error

Suppose in checking the invoice an error is discovered in the calculation.

In case the bookkeeper for Jonas and Co. discovered the error before posting his books, he has already sent you a corrected invoice marked as such. You are then to destroy the invoice first received. If you have received no corrected invoice, write a letter calling attention to the error. We will assume that the pupils discover an error in this invoice; let each write a letter to Jonas and Co. in regard to it. This letter must be brief, pleasantly worded, and clear in statement (See Letter Writing).

Credit Memorandum

When Jonas and Co. receive the letter, the bookkeeper will examine his records and, if your statements are well founded, he sends a credit memorandum; since that is the only way he has to correct his books, for a careful bookkeeper would not think of scratching or erasing a record once made. This credit memorandum will simply be a printed form, with amount of credit filled in and reasons for the same given.

The Terms

The pupil notices under the head of "Terms," the words 2/10, N. 30. That expression means if John Smith pays the bill in ten days he will be entitled to 2% discount; but at the end of the month, he must pay the full (net) price. Discounts are allowed for many reasons, and various expressions are employed to indicate the different rates. The following are some of the terms and their significance:

Net—No discount allowed.
2% cash—A discount of 2% within a reasonable time, often 10 days. It may be only 3 days.
2/10, 1/30, N. 60, would mean 2% in ten days, 1% in 30, but no discount if 60 days be taken.

Sometimes two or even three discounts are allowed. In such cases, such terms are spoken of as a "discount series." When two discounts are given, it does not mean that you are to add the two together to obtain the total per cent of discount, but the first discount is reckoned on the total of the invoice, the second discount on the remainder. To illustrate,—You have purchased a bill of goods amounting to $67.50, subject to the following discounts: 10%, 5/10, N/30, what will pay the bill on or before the ten days?

$67.50—10% = $60.75 (prove it).
$60.75— 5% = $57.71 Answer.

Discount

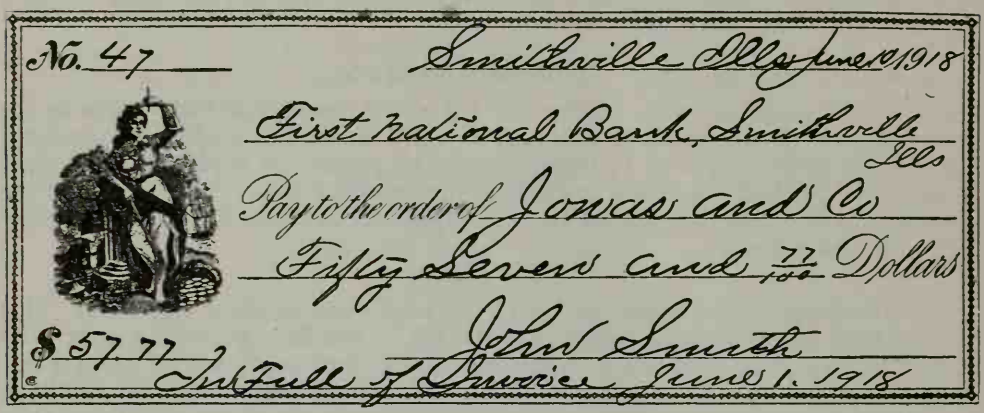
Mr. Smith decides to take advantage of the discount. Accordingly, June 10th (not later) he mails Jonas and Co., the following check (Page 3724).

Study the wording of the check. Notice the writing at the lower left hand. That constitutes a receipt for the check and also records the transaction. Review what was said above about checks (also see "Checks," P. 561).

Pupil's Work

Each pupil will fill out a check for his invoice, and write a letter that is assumed to accompany it to the firm with whom he is supposed to be dealing. This letter is to be brief, neatly written, with clear statement of what the check is for. If you wish to express appreciation for prompt service—or just the reverse—you can do so, but your language is always to be courteous and digni-

fied, and, generally speaking, the letter should be brief. Make a study of the arrangement of the letter on the sheet of paper, the width of the lines, paragraphing, the punctuation, and capitals used. Never imagine that a business letter can be written in "any old way." Success or failure may depend on the effect of a business letter.


No. 47 Smithville Ills June 10 1918
First National Bank, Smithville Ills
Pay to the order of Jonas and Co
Fifty Seven and 77/100 Dollars
$57.77 John Smith
In Full of Invoice June 1. 1918

The Check Book

It will be noticed the number on Mr. Smith's check is 47. He probably removed the check from a book of checks furnished him by his bank, leaving a stub in the book. The stub is to be filled out, constituting a record of the check and showing the balance remaining in the bank to Mr. Smith's credit. We will assume that before he drew the check he had a balance in the bank as shown on the stub. The stub when properly filled out appears as follows:

FORWARD	$237	50
DEPOSITED		
No. 47		
DATE June 10, 1918		
ORDER OF Jonas & Co.		
Invoice, June 1.	57	77
BALANCE	$179	73

The pupils are supposed to have stubs for the checks they fill out. If not, let them rule a form and fill it out. The wording of the stub, of course, varies, but in all cases a record of the check is kept and, at a glance, one notes the balance to one's credit in the bank.

Statement of Account

Though Mr. Smith fully intended to take his discount he was unable to do so. Jonas and Co. waited until July 5, thinking his remittance would be received, but not hearing from him at that time, they sent him a statement of account as follows:

STATEMENT

Chicago, July 1, 1918

John Smith,
Smithville, Illinois.

To JONAS AND CO.
Dealers in
STAPLE AND FANCY GROCERIES
Chicago

June	1	To A-347			$58	95

Pupils will notice the difference in the heading of a statement and an invoice, and observe the number of the invoice given is the same as the number on the original invoice. In bookkeeping, work is reduced to a minimum consistent with certainty of record. In this case Jonas and Co. have a carbon copy of the original invoice to which they can refer if the account be disputed.

What a Statement Shows

A statement shows the conditions of one's account on the ledger of a firm with whom one is doing business at the date of the statement. It is evident that it may contain many items, since the party may have ordered a number of shipments, or he may have made several remittances; but whatever the items may be, the statement will form a condensed and systematic record of the month's transaction, and the balance due or as it appears on the books.

Letter from Jonas and Co.

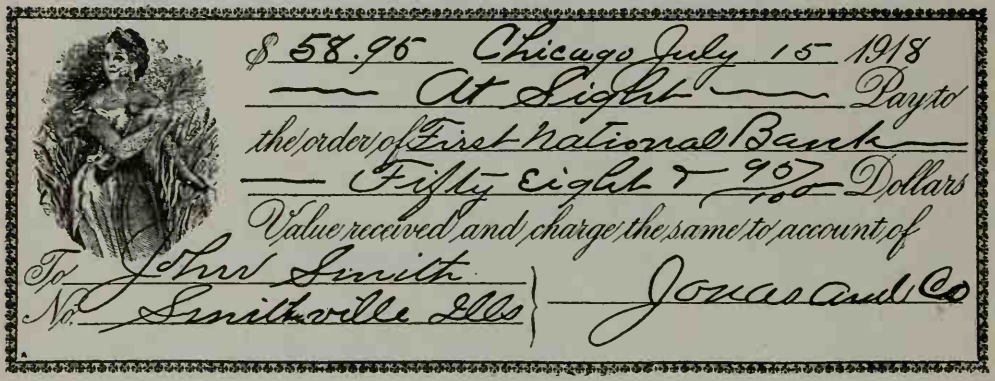
In this case we assume that Jonas and Co. sent a letter with the statement. The letter is brief and courteously written, calling Mr. Smith's attention to the fact that the account is now past due and they would appreciate a remittance to cover the same; but, as is their custom, if they do not hear from him by the 10th inst., they will draft on him for the amount at sight, and they trust he will promptly honor the draft.

Each pupil will now prepare a statement from the firm with whom he is supposed to be dealing, covering his account and prepare a letter from the firm,

addressed to himself, along the lines suggested. These business letters are very important. Be sure and place the letter symmetrically on the sheet.

The Draft

It not being convenient for Mr. Smith to remit the amount of his account, Jonas and Co. drew on him the 15th of July for the amount of his invoice; and Mr. Smith was informed by a bank messenger that a sight draft awaited his attention before the close of business hours. The draft was as follows:



Discussion of the Draft

This is an instance of a sight draft, that is to say there will be no extension of time beyond the day on which Mr. Smith was notified that the draft awaited his attention; it must be paid that day or it will be protested, which may seriously affect his commercial standing. It might have been on time, as three or five days; if drawn for a considerable time, say 30 days, it is known as an acceptance, that is if the drawee accepts it. (See "Bill of Exchange," P. 300; "Draft" P. 852; "Negotiable Papers," P. 1977; and 3943). Every point of discussion about this draft must be fully understood. In this particular case, Jonas and Co. is the drawer, they make the draft; John Smith is the drawee, he is the one on whom it is drawn; the First National Bank of Chicago is the payee, the one to whom or to whose order the payment is to be made. Jones and Co. could have made some bank in Smithville, perhaps Mr. Smith's own bank, the payee if they had so desired.

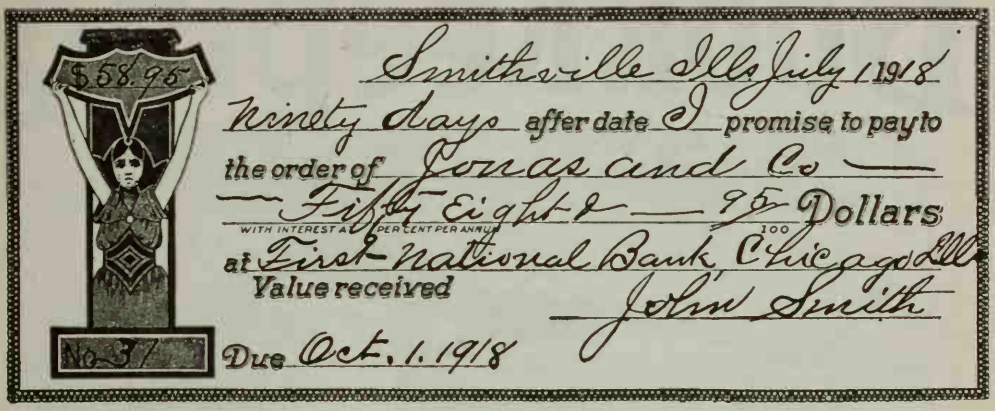
Pupil's Work

After these points are understood, the pupils will each, for himself, draw such a draft for the amount due on his individual problem. The exercise can be varied by having some pupils write time drafts and accepting them. Do not forget that each exercise the pupil works out is to be filed in his envelope as a part of his series. Do not accept as final such papers unless they are accurate in form and calculation, and neat in appearance.

A Promissory Note

About the middle of June, Mr. Smith saw that, owing to valid reasons, he would not be in condition to pay Jonas and Co. the first of July; so he arranged

by letter for an extension, that is, for further time. Jonas and Co., willing to accommodate Mr. Smith, agreed to accept a ninety days' note for the account. Mr. Smith sent them the following note:



This note is now to be discussed in full, taking up every point that should be considered. (See Promissory Note, P. 2358, Negotiable Papers.)

Pupil's Work

Each pupil will now write a letter to the firm with whom he is supposed to be dealing, asking for an extension of time. The letter must be brief, not supplicatory in tone, but presenting some good reason for such a business favor, and suggest a note, the time asked for may be varied, some 60, some 90 days. Also, assuming the offer has been satisfactory, write the note to cover the same.

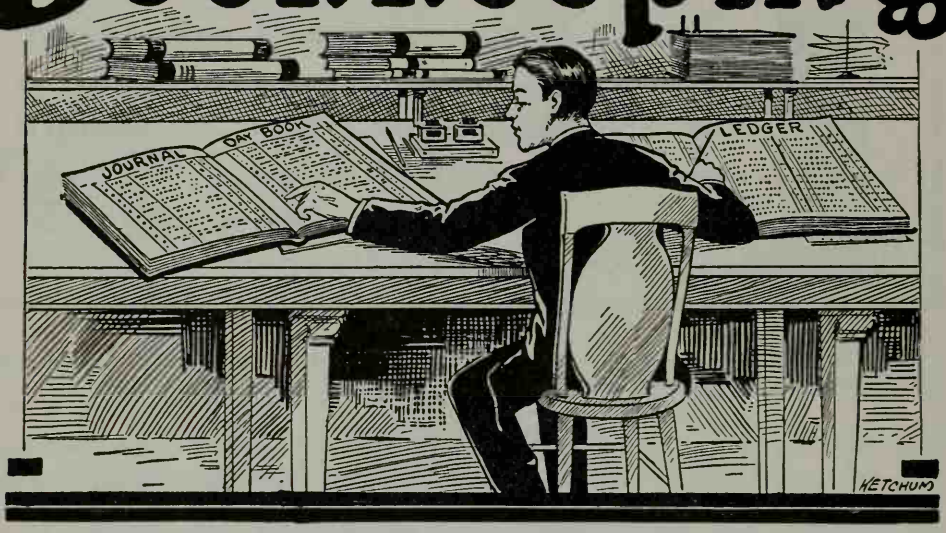
Remarks

This suggested series of operations entail some work on the teacher, but the entire subject of business arithmetic throbs with life. Business forms treated in this way become a part of the pupil's knowledge in a sense that mere description in books cannot impart. But these are suggestions only. The teacher is to vary them according to circumstances. Furthermore, extensive drill must be provided. Give the pupils additional invoices to verify, other receipts, drafts, checks, and notes to write. Set them to figuring discounts.

Results

This series of operations in connection with extensive drill in Rapid Calculation and really vital problems as suggested in the section on Problems will result in a knowledge of arithmetic applicable to business life, superior to the more or less theoretical knowledge that pupils gather only to forget when school life is over.

Bookkeeping



Bookkeeping is a method of keeping systematic records of business transactions. As in every department of learning, we must become acquainted with special terms and the meaning of forms that have been established by usage and are understood by the business world.

Bookkeeping of Value to All

One cannot make a greater mistake than to conclude that only merchants, bankers, and men engaged in similar lines of activity can make practical use of bookkeeping knowledge. In life, we cannot all be doctors, but all should understand the A. B. C. of hygiene; all need not be professional and technical experts, but all should have a good, practical education. In a similar sense, it is indeed not necessary for all to become professional bookkeepers, but all would be helped on the way to success by ability to use in daily life a knowledge of fundamental operations in bookkeeping.

The Crisis

This statement is emphatically true today. The old condition of affairs in America will no more return than life and times at the close of the Revolutionary War. The entire machinery of life is to move at more rapid speed. The keynote of success in life will be efficiency. Those who cannot measure up to the needs of future business must give place to those who have roused to the necessity of preparation and are ready for the contest. The days of "guess so" and "perhaps" are past; the age of "know" is at hand. Each one facing the future should realize this at once.

How Bookkeeping Helps

The greatest benefit of bookkeeping is that it affords a scale by which to measure the worth of actions. It replaces doubt with certainty. Is a merchant making or losing money? A few financial statements prepared according to the rules of bookkeeping answer the question and disclose weak places in methods. Then the merchant can work intelligently, hopefully, and to a purpose. If he was headed towards disaster, he is now on the road to success. It is worthwhile knowledge. It is equally helpful in daily life. Does it pay a farmer to raise this or that crop, or to purchase commercial fertilizers? Elementary operations in bookkeeping will assist him to an answer. Also in a home; in some instances despite work, economy, and judicious application of means to an end, life is an unending struggle with necessity. Application of the simplest bookkeeping methods will often disclose the trouble and indicate the remedy.

Our Plans

Impressed with these facts, realizing the worth of the general principles underlying all bookkeeping, we have prepared this article, intending it to help those who desire to gain a working knowledge of bookkeeping. It is necessary to devote considerable attention to definitions and fundamental operations. The greatest mathematician in the world had first to study addition, subtraction, etc., in arithmetic. The most expert accountant had to master elementary principles, before he was able to employ advanced methods. We desire to place within the reach of all elementary knowledge that will enable them to understand higher methods if they desire, or to apply the knowledge they here gain to transactions in daily life and thus experience its practical benefits.

Method Employed

We shall make choice of a very simple memorandum of transactions, showing how the same would be duly recorded in the simplest of approved forms, with comments and explanations as we proceed, and ask all who seek the benefit of this article to faithfully follow our suggestion by recording other exercises given for such a purpose. One can either rule sheets of paper according to the models we present, or buy prepared paper from almost any stationery store. Considerable of this ruling is generally in red ink; we shall indicate where such ruling could be employed. The tendency, however, is to dispense with red ink ruling and entries.

Memorandum of Transaction

January 1, 1918. John Brown began flour and grain business, investing cash $2500.00.
January 2, 1918. Bought of A. O. Stone, for cash, 1000 bushels of corn at $0.67; 100 barrels of flour at $5.50.
January 3, 1918. Paid rent of store for January, in cash, $50.00.
January 4, 1918. Bought of Wm. Archer, on account, 500 bushels of oats at $0.42.
January 5, 1918. Sold Peter Snyder, for cash, 25 barrels of flour at $6.75.
January 6, 1918. Sold Andrew Lea, on account, 200 bushels of oats at $0.50.
January 7, 1918. Sold Geo. Cook, on his note, 300 bushels of corn at $0.75.
January 8, 1918. Bought of Wm. Archer, on my note, 500 bushels corn at $0.70.
January 9, 1918. Received cash of Andrew Lea in full of account, $100.00.

The above memorandum is now to be recorded in bookkeeping forms and language. The first step we shall take is to place each transaction in the journal-daybook. In advanced bookkeeping this book is virtually dispensed with; but,

since such advanced methods rest on the principles here employed, it is necessary to explain this step. He who seeks to understand bookkeeping must make an earnest effort to understand every step of the way.

JOURNAL-DAYBOOK

Jan. 1918

		1.					
1	Cash	John Brown commenced Flour and Grain business, invest-	2500				
1	John Brown	ing cash $2500.00.			2500		
		2.					
1	Mdse.	Bot. of A. O. Stone for cash	1220				
1	Cash	1000 bush. corn .67			1220		
		100 brls. flour 5.50					
		3.					
1	Expense	Paid Rent of Store for	50				
1	Cash	January.			50		
		4.					
1	Mdse.	Bot. on Act.	210				
1	Wm. Archer	500 bushels Oats .42			210		
		5.					
1	Cash	Sold Peter Snyder for cash	168	75			
1	Mdse.	25 Brls. flour $6.75			168	75	
		6.					
1	Andrew Lea	Sold on Act.	100				
1	Mdse.	200 bush. Oats .50			100		
		7.					
1	Bills Rec.	Sold Geo. Cook on his note	225				
1	Mdse.	300 bush. Corn .75			225		
		8.					
1	Mdse.	Bot. of Wm. Archer on my note	350				
1	Bills Pay.	500 bush. Corn .70			350		
		9.					
1	Cash	Rec. in full of act, cash	100				
1	Andrew Lea				100		

It is now necessary to make a study of the above form and consider necessary definitions.

Double Entry

We are employing double entry methods,—that is to say in this method we not only keep accounts with persons, but we divide the general business into convenient subdivisions and keep accounts with each subdivision; and since there are always two accounts affected in a transaction, the amount involved is entered twice.

The Journal-Daybook

The form employed is a leaf from a Journal-Daybook. Such a book is, as its name implies, a combination of the journal and the daybook. The left hand column is the journal part; the right hand column the daybook. The first column simply gives us the names of the two accounts affected and indicates which one is to be credited the amount involved and which one is to be debited. The

debtor account is mentioned first; the credit account, second. The second, and wider, column is the daybook column. It contains a history, written in the most condensed form possible, of the transactions; not a word of unnecessary writing is employed. This column is the column of original entry; we do not go back of it; we refer to it to see if the journal column is correct. No erasures are allowable in this column. In different systems the arrangement may vary, but the essential facts are as shown in this illustration.

Accounts Used

It is well to explain the principal subdivision of any business, generally found in double entry work. In this exercise there are three personal accounts,—Mr. Brown, Mr. Archer, and Mr. Lea. In any extensive business there would be a great many personal accounts. We have, however, five other accounts, known as impersonal accounts,—Cash, Merchandise, Expense, Bills Receivable, and Bills Payable. Merchandise refers to the staples of the business. In books for a hardware store, merchandise is quite different in meaning than when used in books kept for a grocery. Expense is whatever is paid out for the general business. Rent of store is expense; but a freight bill is not, it should be charged to merchandise. Bills receivable and Bills payable do not mean what is generally understood by the word bill, but only promissory notes or acceptances (See Business Arithmetic). Other impersonal accounts are also employed in an extensive business,—such as Discount, Interest, etc.

Debit and Credit

It is very important to understand clearly what account to debit, what to credit. If you borrow a sum of money from another person, you are in debt, or you are debited; the one who lends the money is your creditor. Let us apply that same reasoning to impersonal accounts. You have the following rules:

Debit whatever account receives the item or items in the transaction.

Credit whatever account furnishes the item or items in the transaction.

Referring now to the memorandum of transactions, trace each transaction into the journal-daybook. Study each item. Notice how the transaction of January 2 is entered. Notice the two accounts affected in that transaction. Why is merchandise debit? Why cash credit? Could you make a record of that transaction in the daybook column in fewer words? Could you express it in any way more clearly? Take up each transaction; do not pass on until you understand every one.

Exercise

You will now rule a sheet of paper for a journal-daybook on which to place the following memorandum. Should you wish to use red ink ruling, rule in that color all the lines appearing on the model except the lines separating the journal column from the daybook column. Remember, slovenly, inaccurate work will not go in any acceptable bookkeeping, neither will erasures or alterations. Take your time and think over each transaction with care. Don't guess at the accounts to be placed in the journal column; nor allow yourself to be in doubt as to which is debit, which is credit. Make all calculations with care, on a separate piece of paper, before placing the totals in the money columns. Preserve the sheet in an envelope, since it is to be the first of a series of bookkeeping forms that will finally form a complete record of this memorandum.

Exercises

January 1. James Hart commenced flour and grain business, investing cash $3500.00.

January 2. Bought of Edward Larkin, for cash, 75 barrels flour at $6.50.

January 3. Paid three months' rent at $50.00 per month.

January 4. Bought a set of office books, $15.00; office furniture, $75.00; sundry supplies, $20.00. Paid Cash..?..

January 5. Sold Henry Davis, for cash, 10 barrels flour at $7.25.

January 7. Bought of Mason & Co., on account:

100 barrels flour	at	$ 6.00
1000 bushels corn	at	.67
500 bushels oats	at	.37½
50 barrels beef	at	14.00

January 8. Sold Henry Davis, on his note:

100 bushels corn	at	$ 0.75
10 barrels flour	at	7.50

January 9. Sold Frank Smith, on account:

100 bushels oats	at	$ 0.45
100 bushels corn	at	.75
5 barrels flour	at	7.75

January 10. Bought of Mason & Co., on my note at 30 days:

500 bushels corn	at	$ 0.70
200 bushels oats	at	.37½
25 barrels beef	at	15.00

January 11. Paid Mason & Co., on account, $500.00.

January 12. Withdrew for personal use, $100.00.

January 14. Received of Frank Smith cash in full of account.

January 15. Sold Lake-side Produce Co., for cash:

600 bushels corn	at	$ 0.80
300 bushels oats	at	.47
10 barrels beef	at	17.50

January 16. Paid Gas bill, $3.00; Telephone bill, $4.00.

January 17. Paid Mason & Co. cash, on account, $500.00.

January 18. Sold Frank Smith, on account:

100 bushels oats	at	$ 0.48
10 barrels flour	at	7.75
10 barrels beef	at	17.50
300 bushels corn	at	.80

January 19. Paid Mason & Co., cash in full account.

January 20. Bought of Mason & Co., on account:

500 bushels corn	at	$ 0.68
20 barrels flour	at	6.75
10 barrels beef	at	13.50

January 21. Sold Henry Davis, on account:

200 bushels corn	at	$ 0.85
100 bushels oats	at	.50
10 barrels flour	at	7.50
10 barrels beef	at	17.00

Exercises in Journalizing

Journalizing is the corner stone on which bookkeeping rests. Advanced methods in bookkeeping indeed dispense with the journal-daybook; but one cannot understand those methods unless one understands the principles of journalizing. We, therefore, present problems in journalizing. Let the pupils answer them, and propose a great many more until he feels confident he can determine on inspection just what accounts are indicated. For instance, the answer to the first question is, John Barker, debit; merchandise, credit.

Test Questions

Write the journal entries for the following transactions:

1. John Barker buys from you merchandise on account.
2. Peter Snyder pays you cash for a bill of goods.
3. You buy a set of office books, for cash.
4. John Barker pays you some money on account.
5. Henry Smith sells you a bill of goods and accepts your note.
6. You pay one of your notes due today.
7. Ralph Snyder, who owes you a note, pays it today.
8. You pay your clerk's salary, in cash.
9. Charles Williams gives his note for a bill of goods.
10. Marshall Field sells you a bill of goods on account.
11. You pay a freight bill on a car of merchandise, in cash. (Be careful in your answer.)
12. The proprietor, John Smith, draws some money for his private use.
13. You buy a bill of goods from John Brown and pay one-half cash; balance, on account.
    (Note, in this case there are two entries on the credit side.)
14. Mr. John George buys a bill of goods. He pays half down and gives his note for the balance. (There are two entries on the debit side.)

Posting in the Ledger

We have now taken the first step in bookkeeping. The next step is to transfer correctly the totals of the items in the money columns of the journal-daybook to the ledger, each under its appropriate account and on the right side of that account. This operation is called posting. The journal column is our guide in this matter. Posting is essentially copying; since discriminating thought and consideration have been given in preparing the journal column. One will fail as a bookkeeper, unless posting is accurately and neatly done.

The Ledger

The ledger is a book in which entries in the journal, or other books of original entry, are brought together forming an account; that is to say, an orderly collection of debits and credits, under the heading to which they refer. It is the book of final results in bookkeeping. To it we refer to determine the amount due from, or owing to, persons named in personal accounts; and from it we prepare statements of results necessary for the proprietor to know concerning his business.

Illustrations

The ledger sheet following contains the ledger entries for the exercise shown in the journal-daybook sheet. It is well to note the three steps,—we first had a memorandum of certain transactions; we then journalized the items;

LEDGER

JOHN BROWN

								Jan.	1		1	2500	
						CASH							
Jan.	1		1	2500		Jan.	2		1	1220	
	5		1	168	75		3		1	50	
	9		1	100							
					MERCHANDISE								
Jan.	2		1	1220		Jan.	5		1	168	75
	4		1	210			6		1	100	
	8		1	350			7		1	225	
					EXPENSE								
Jan.	3		1	50							
					BILLS RECEIVABLE								
Jan.	7		1	225							
					BILLS PAYABLE								
								Jan.	8		1	350	
					ANDREW LEA								
Jan.	6		1	100		Jan.	9		1	100	
					WILLIAM ARCHER								
								Jan.	4		1	210	

now they have been posted into the ledger. These three steps are the foundation on which all systems of bookkeeping rest. Understanding them thoroughly, one will have no difficulty to understand any system of bookkeeping.

A Study of the Ledger

We must make a careful study of the ledger sheet. Observe that all possible work has been eliminated. Nothing but the name of the accounts and figures appear. Several reasons, however, may make it necessary to explain the item, and if so we would write it down. Take the first entry, John Brown. The date is given. The figure in the column to the right of the amount refers us to the first page of the journal, to which we can refer if we wish to understand the entry. If we turn back to the journal-daybook, we note the entry; and we also observe in the column to the left of John Brown's entry, a figure, 1, which informs us that we have posted the entry on the first page of the ledger. In actual work these check figures must be put down at once when the posting is completed. Do not trust to memory to write them in later, neither should you make several postings before checking them in. Start right in any operation of this kind and it becomes a habit.

Trace the Entries

In a similar manner, trace the posting of every account in the journal column to the ledger. If you study the ledger sheet you notice that for every amount on the debit side, there is somewhere a similar amount on the credit side. The ledger is said to be in balance if such is the case. A method of testing this matter will soon be disclosed. Analyze the three steps. We had first a memorandum of the transactions. In the journal-daybook, we put down for future reference a statement of the transaction, couched in strict business form, also we indicated the accounts affected, and the totals to be debited and credited. Finally in the ledger these various totals have been placed under the headings to which they belong, in definite order, so that now we can see at a glance the condition of any account. To illustrate, we see that Andrew Lea's account balances; Mr. Archer owes $210.00; we should have on hand $1498.75.

Method of Posting

In the busy office the bookkeeper posts at most convenient time after his journal is written up; but he must not delay very long. In general, each day's business is posted before the day's work is completed. In posting it is most convenient to post all the debit items first, then go back and post the credit items. For instance, the accounts in our journal-daybook were posted in the following order:

1. Debits,—Cash, Mdse., Expense, Mdse., Cash, Andrew Lea, Bills Receivable, Mdse., Cash.
2. Credits,—John Brown, Cash, Cash, Wm. Archer, Mdse., Mdse., Mdse., Bills Payable, Andrew Lea.

In Actual Work

In actual experience, the bookkeeper would have a bound volume; or else loose sheets to be placed in a self-binder as needed. We have ruled the sheet so as to place the accounts all on one sheet. In practice you would allow one page to the proprietor; one to each of the impersonal accounts; and about half a page to each personal account, unless you were informed of any particular

person that he was a regular and important customer. As you open accounts you would fill out the index in the front of the ledger, giving the name and page number of the account, so that you could refer to it at once.

Exercise

The pupil will now either procure ruled sheets of ledger paper from a stationer or rule blank sheets to agree with the model we have given. Should you wish to use red ink rulings, rule in that color all the lines in the model, except the lines down the center of the page. In general they would consist of three fine lines,—the outer ones red, and the center one black. Rule at least two sheets. Post on these sheets the journal-daybook you prepared for the exercise you are going to carry through on these forms. Take pains with the ruling and make your figures small, the tendency is to make them too large. Be careful not to blot your work. You need a great deal of practice with exercises similar to the ones given you.

A Trial Balance

A trial balance is a statement that a bookkeeper draws off from his ledger to see if it be in balance. It is a test (but not a conclusive one) of the accuracy of his work; since, for every entry on the debit side of an account, there is somewhere an entry, similar in amount, on the credit side.

TRIAL BALANCE, Jan. 9, 1918

1	John Brown			2500	
1	Cash	1498	75		
1	Merchandise	1286	25		
1	Expense	50			
1	Bills Receivable	225			
1	Bills Payable			350	
1	Wm. Archer			210	
		3060		3060	

We illustrate from our model Ledger. It will be observed we made a list of the balances (the differences between the debit and credit sides) of the accounts placing each balance on the debit or credit side as it is shown in the ledger; and then added the two columns. If our ledger is in balance the sums of the debit and credit balances (the two columns) must themselves balance. If they do not thus balance an error has been made, and we must check over the results until we discover the error.

Pupil's Work

The pupil is now to draw off the trial balance of the ledger sheets he has prepared for his exercises. For this purpose, he will figure the balance of his accounts on a separate sheet of paper. Do not make a mistake and put down a debit balance on the credit side of the trial balance, or just the reverse.

Statements of Results

The object of bookkeeping is to show the condition of the business. For this purpose the bookkeeper is often requested to prepare certain statements from his ledger. These are known as Statements of Results. There are two classes,—Financial Statements, and Business Statements; often, however, combined in one, known as a Balance Sheet. We will assume that the bookkeeper has been requested to prepare a financial statement from our ledger showing the present worth of the business.

A Financial Statement

A financial statement is a statement made out in due form from the financial accounts of the ledger,—that is from accounts whose balances represent a resource or liability.

A resource represents actual or potential value, such as merchandise or cash on hand, an account or note due the business.

A liability is something that will withdraw value from the business when it is settled, as an unpaid bill for merchandise.

As thus understood, financial accounts in a ledger are all personal accounts; except the proprietor's and cash, bills receivable and bills payable of impersonal accounts.

Merchandise is not a financial account, since its balance on the ledger is meaningless (except on a trial balance) for you buy at one price and sell at another. But when making a financial statement, it is necessary to take an Inventory of stock on hand, for such merchandise is a resource. In estimating the value of an inventory, estimate at cost price, not selling price. We will assume in the exercise we are illustrating that such an inventory has been taken and that it totals $1406.25. We will illustrate from our model ledger. The present worth is the amount necessary to make the statement balance.

FINANCIAL STATEMENT, Jan. 9, 1918.

Merchandise Inventory	1406	25		
Cash on hand	1498	75		
Bills Receivable	225	00		
William Archer			210	00
Bills Payable			350	00
Present Worth			2570	00
	3130	00	3130	00

Pupil's Work

The pupils will now prepare according to the above model a financial statement drawn from the ledger made for the exercises they have been given to carry through. For the purpose of inventory, determine from the journal-day-book how many barrels of flour, beef, bushels of corn, etc., are on hand; estimate the value of the several articles at the lowest cost price, but, since the market for these staples is slowly rising, add 5 per cent to the total, for a fair present value of the inventory. If you use red ink rulings, rule all the lines in red and also write the last entry (Present worth and figures) in red ink.

A Business Statement

The exercise we are carrying through is a very simple one for the purpose of illustration. In actual business you might be keeping books for a general business that had a number of departments,—such as groceries, dry goods, and hardware; and the proprietor wishes to know what departments of his business are making a profit, or suffering a loss. So he calls for a Business Statement. We can illustrate from our model ledger.

How Obtained

A business statement is drawn from business accounts in the ledger,—that is, accounts that show gain or loss. They are necessarily impersonal accounts, but not all impersonal accounts are business accounts. In any small business you would have only a few such accounts. Merchandise and expense are always of such a nature. Others might be discount or, if keeping accounts with separate departments of a store, each department's account would be a business account, since it would show either a gain or a loss. It is necessary to take an inventory.

BUSINESS STATEMENT, Jan. 9, 1918

		Loss		Gain	
Merchandise Inventory	1406.25				
Merchandise Credits	493.75				
	1900.00				
Merchandise Debits	1780.00				
Merchandise Gain				120	00
Expense, Loss		50	00		
Net Gain		70	00		
		120	00	120	00
PRESENT WORTH					
Proprietor's Balance	2500.00				
Net Gain	70.00				
	2570.00				

Discussion of This Statement

We have explained how the inventory was made and its value found though in this case it is assumed. It should be clear that if we were to add to the value of the inventory, the value of the merchandise sold (the credit side of merchandise account in the ledger), and subtract from the sum what the merchandise cost (the debit side of the merchandise account) the resulting quantity is the gain we have made for merchandise. Expense always represents a loss. In an extensive business there would be other business accounts that would show a loss or gain depending on whether their balances were on the debit or credit side of the accounts. The net gain is the balance between the loss and gain.

Present Worth

If you compare this statement with the financial statement already discussed, you notice in each case we have found the same present worth of the business. This agreement is a test of accuracy, for manifestly, there can be but one present worth. If they do not thus agree, an error has been made and you must check over your work.

Pupil's Exercise

The pupil is now to form a business statement, using the above form as a model for his exercise. In red ink rulings, rule all lines in that color, also the words "Net Gain" and its figures should be red. We have explained how in that exercise you are to obtain the inventory.

A Balance Sheet

In most cases, however, when it is desired to form statements of results, a more full and complete statement is made out. It is a combination of the trial balance and the two statements we have just considered, and is called a Balance Sheet.

BALANCE SHEET, January 9, 1918

	Accounts	Dr.		Cr.		Loss		Gain		Resources		Liabilities	
1	John Brown			2500									
1	Cash	2768	75	1270						1498	75		
1	Merchandise	1780		493	75			120		1406	25		
1	Expense	50				50							
1	Wm. Archer			210								210	
1	Bills Receivable	225								225			
1	Bills Payable			350								350	
		4823	75	4823	75	50		120		3130		560	
	Net Gain					70							
						120		120					
	Present worth											2570	
										3130		3130	

Discussion of the Balance Sheet

It is evident at a glance that we have in a properly drawn off balance sheet a complete analysis of the business. The figures in the column to the left of the accounts refer to the pages in the ledger where the accounts are posted. It will be noticed that the first two columns, to the right of the double columns, constitute a trial balance, showing that the ledger is in balance. The next two double columns (gain and loss) constitute the business statement. The origin of the figures representing gain following merchandise is explained in the discussion of the business statement. The last two double columns form the financial statement. The figures following merchandise in the column of resources is the value of the merchandise inventory. A further test of the accuracy of the bookkeeper's work is obtained by adding the net gain to the credit entry of the proprietor's account as shown in the ledger. It must give the same present worth as the balance sheet.

Pupil's Exercise

The pupils are now asked to form a balance sheet for their exercise. In ruling their form, if using red ink, place all rulings in red. Also place the inventory figures, the net gain and present worth entries (words and figures) in red. Observe all suggestions made as to neatness of work, legibility of writing, and small, clearly outlined figures.

Balancing of Accounts

For the purposes of an introductory course in bookkeeping it only remains to add a few suggestions as to balancing accounts. The subject of the formal closing of a ledger belongs to higher bookkeeping and is not necessary to illustrate for our present purpose. But occasions often arise that require the balancing of financial accounts. Business accounts in general are balanced only on formal occasions—as for instance at the close of the year—or when a business statement is desired.

To Balance An Account

To balance an account is to place, for temporary purposes, a sum expressed in figures, on the smaller side (debit or credit) of the account, sufficient to make its total equal (to balance) to the other side. We will illustrate from the account of cash in the model ledger.

CASH

Jan.	1		1	2500	00	Jan.	2		1	1220	
	5		1	168	75		3		1	50	
	9		1	100	00			Balance		1498	75
				2768	75					2768	75
		Balance		1498	75						

Discussion of the Forms

You will notice a word in explanation of the balancing entry. This is necessary, for we must know how the figures of the entry were obtained. For all other entries in the account we are referred to a journal entry for explanation. Observe also the entry below the ruled lines on the other side. Do not forget that for every entry on one side of the ledger, there must be an entry of equal amount on the other side. In all financial accounts (refer back to the definition) these opposite entries are found in the same account. Business accounts (what are they?) are closed (the opposite entry is made) into a special account, opened for Loss and Gain as explained in advanced bookkeeping. In red ink rulings, the lines are in red, also the balancing entry (word and figures). The entry on the opposite side, below the double lines, is in black. Observe, the single line only crosses the money columns; the double lines cross all spaces, except the wide ones.

How to Keep Simple Accounts

We have illustrated a simple system of double entry bookkeeping. Any business of importance requires books based on this system. But accounts should be kept by all whether technically in business or not, by the farmer, the homemaker, the clerk,—all busy people. This custom conduces to habits of thrift, so necessary at the present day. Figures often have a message of warning, or counsel that speaks more convincingly than words.

The Daybook

To keep necessary accounts is a very simple process. Double entry methods are not required; only very simple single entry methods. The preliminary book is generally called the Daybook; sometimes, simply the blotter. It is any book in

which is recorded, from day to day, the business transactions to which one has been a party. It contains a business history of the day written with care, in an orderly manner, following a due form. We will take the same memorandum of accounts selected for double entry and follow it through single entry books.

This daybook should now be compared with the Journal-Daybook on page 3730, for they both record the same transaction; first in double entry form, now in single entry.

DAYBOOK, January, 1918

	1.				
1	John Brown	Cr.			
C	Commenced Flour and Grain Business, investing cash				2500
	2.				
	A. O. Stone Purchase invoice.				
	1000 Bushels corn at $0.67		670	00	
	100 Barrels flour at 5.00		550	00	1220
C	Paid cash.				
	3.				
C	Rent of Store for January, Cash.				50
	4.				
1	Wm. Archer Purchase invoice.	Cr.			
	500 Bushels oats at $0.42				210
	On acc't				
	5.				
	Peter Snyder Sales invoice.				
	25 Barrels flour at $6.75				168 75
C	Cash				
	6.				
1	Andrew Lea Sales invoice	Dr.			
	200 Bushels oats at $0.50				100
	On acc't				
	7.				
	Geo. Cook Sales invoice.				
	300 Bushels corn at $0.75				225
	On his note				
	8.				
	Wm. Archer Purchase invoice.				
	500 Bushels corn at $0.70				350
	On my note				
	9.				
1	Andrew Lea In full of acc't.	Cr.			
C	Rec'd Cash				100

Discussion of the Daybook

It will be observed that the daybook is simply a more formal entry of the business transaction. Any clearly expressed method of entering the transactions

will do; but it is well to follow the above form. The column to the left of the entries gives us the ledger page, where the transaction is entered, if it be a personal one; the letter, C, indicates it is posted in the cash book. In this form we are not keeping an account with bills payable, or bills receivable though that is often done. The form given will do for any one. On it may be kept a record of farm or household expense. In the latter case, one could enter the total of household expenses when the same are paid, once a week or once a month; or, if payment be made day by day when supplies are purchased, record the totals each week.

Elimination of Work

It is still necessary to eliminate all unnecessary work. In actual business you would receive an invoice of all purchases; you would preserve a carbon copy of the invoices of sales. You would number the invoices in both instances and file them away for reference. There would then be no necessity to keep a daybook record of the invoices, since you can post directly from them. If you wished the daybook to contain a brief history of all transactions, you would change the form of the entry. To illustrate, the item of January 2 would appear in this form, if the invoice were duly numbered and filed away:

Paid Cash, A. O. Stone, invoice number 1.....$1220.00

Cash Book

It is necessary, in single entry to keep a cash book. The cash book may be ruled as is the account with cash in double entry ledger; but generally a simpler form is employed, as follows:

1918				Dr.		Cr.	
Jan.	1	John Brown	Invested	2500			
	2	Bot. of A. O. Stone	Mdse.			1200	
	3	Rent of Store	January			50	
	5	Sold Peter Snyder	Mdse.	168	75		
	9	Rec'd Andrew Lea	On Acc't.	100			
		Balance January 9				1498	75
				2768	75	2748	75
		Balance		1498	75		

Discussion

Compare the above with the cash account in the double entry ledger. On balancing it we have the same balance $1498.75. Notice the balancing entry should be in red ink, unless we dispense with red rulings. We, however, need to make the entries more complete; because in double entry we are constantly referred to a journal entry in explanation of the cash items. This form will suffice to keep a record of cash receipts and payments that every one should keep. Procure a book ruled as above. For your first entry put down under the head of "Cash on hand," whatever amount of cash you have in the debit column. After that put down in the debit column whatever you receive. A simple word of explanation explains the entry; or by turning to the daybook entry you have further details. Put down in the credit column whatever cost you pay out. The difference (balance) will always show what you should have on hand.

Ledger Single Entry

The ledger used in single entry is also a simple one, because any business demanding a more formal ledger would be of enough importance to be kept by double entry methods. The following would be the ledger entries of the sample exercise kept by single entry methods:

JOHN BROWN

1918			Dr.		Cr.	
Jan.	1	By Investment			2500	
		WM. ARCHER				
Jan.	4	By Mdse.			210	
		ANDREW LEA				
Jan.	6	To Mdse.	100			
Jan.	9	By Cash			100	

Discussion

In single entry we do not keep impersonal accounts, hence we have no account with merchandise, expense, bills receivable, and bills payable, though accounts are often opened with the last two.

Pupil's Work

It is suggested that the pupil now prepare a set of single entry blanks and write up the exercise he has previously carried through on double entry forms. He is now in condition not only to understand both systems, but he appreciates the advantages of double entry for strictly business purposes; single entry methods are applicable to private use.

Remark

The Home and School Education Society has made an effort to explain bookkeeping in its fundamental aspects. A great deal will depend on the pupil himself; on the faithfulness with which the exercises are carried through. We realize the importance of this subject, and know that a knowledge of bookkeeping conduces to efficiency in business life. The time is at hand when to achieve success one must make use of every method that helps. To further these objects, we extend to all entitled to make use of these suggestions an invitation—good for limited time only—to send to this office the forms they are asked to fill out for examination, criticisms, and suggested changes. We trust that this extra labor on our part will be appreciated, and that many will hasten to take advantage of it.

THE METRIC SYSTEM

All preparing for business life should possess a working knowledge of the Metric System. Our country is coming into more intimate connection with other nations. The Metric System is for scientific purposes in universal use; for business purposes, it is in vogue among all European nations (except England) and all South American nations; it is slowly forcing its way into our own country; and before many years it will probably be a necessary part of advanced arithmetic.

What Is the Metric System?

Without repeating what has been said elsewhere (Page 1827) we will say that the Metric System is a system of common measures in which the units are someway connected with, or derived from, a common unit known as the meter; and whether one is considering tables of weight, capacity, or any other quantities, it is in every case a decimal table, consequently if one understands comparatively few terms, one can easily solve any problem.

Illustration

Addition of English money.

Pounds	Shillings	Pence
20	5	7
10	16	8
31	2	3

Addition of American money.

Dollars	Dimes	Cents
20	4	6
5	8	6

20.46
5.86
26.32

In adding English money, we have to reduce the answer in each case to a higher denomination and carry the result. In adding American money, we simply add two decimal numbers. Notice the saving of time and work. It should be added, that Great Britain, doubtless, will soon change to a decimal system of money notation.

Now consider the following:

Addition of American Distances

Miles	Rods	Feet
15	180	15
6	175	7
22	36	5½

Addition of French Distances

Kilometers	Hectometers	Meters
20	7	18
8	9	25

20718
8925
29643

In our system, we add, reduce, carry, etc. In the French system, we simply add two numbers. We can read the answer indifferently, 29643 meters, or (point off 29.643, read) 29 kilometers, 643 meters. Reflection convinces us of the great superiority of the Metric System, and we understand why it is steadily winning its way. It is a case of the survival of the fittest.

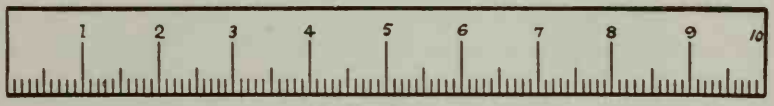
The Meter

We must first gain a clear concept of a meter. It is of little worth to read, or explain to another, that a meter is 39.37 inches. Procure a smoothe lathe, if nothing better presents itself, mark off on it a meter (39.37 inches), tell pupils that it represents a meter, just as a yard stick represents a yard. Let them

measure distances. How many meters wide is the school room? How high is it? How many meters does their house set back from the street? It is well to explain the origin of the meter, but that is not the essential point.

Comparison With Our System

Just as we divide a yard into feet and inches, or consider multiples of a yard,—as rods, furlongs and miles; so we divide the meter into tenths and hundredths,—known respectively as decimeters and centimeters. Procure from the Bureau of Standards in Washington a Comparison Chart, showing our measures and the metrical equivalents; mark off on the meter a decimeter (3.93 inches), such as we here represent,—the tenth part of a meter.



A Decimeter

Subdivision

Notice, a decimeter contains 10 centimeters. Observe, that a nickel is two centimeters wide. How wide is this page, expressed in the metrical system? One decimeter and (how many) centimeters? Then how many centimeters in all? Observe, each centimeter is divided into ten parts. How many of these subdivisions in a decimeter? How many in a meter? Each of these small subdivisions is a milli-meter. How many millimeters in one inch (or very nearly)?

Multiples of the Meter

We need terms to express a definite number of meters; just as we have rods, furlongs, and miles to express a definite number of yards. But as the metric system is also a decimal system, the increase is by tens. Ten meters is a Deca-meter. Mark off such a distance on the sidewalk. 100 meters (10 deca-meters) is a hecto-meter, and 1000 meters (10 hectometers) is a kilo-meter. If we make careful calculation we discover that 1 kilometer (1000 meters) is very nearly 5/8 of a mile. How many kilometers do you travel in coming to school? About how many kilometers from your home town to the capital of your state? If a battle front is said to be 25 kilometers long, how many miles in length is it?

The Terms Used

It is now well to arrange the terms we have used in a table. In our ordinary decimal notation, we have to the left of the decimal point units, tens, hundreds, thousands, etc.; to the right, we have tenths, hundredths, thousandths, etc. In the Metric System, it is exactly the same, but we employ Latin and Greek terms, since they are to be used by people speaking all languages. Notice the following table.

Decimal notation	Metric notation	Illustration
Thousands	Kilo	Kilo-meter
Hundreds	Hecto	Hecto-meter
Tens	Deca	Deca-meter
The unit	The unit	Meter
Tenths	Deci	Deci-meter
Hundredths	Centi	Centi-meter
Thousandths	Milli	Milli-meter

Simplicity of the Metric System

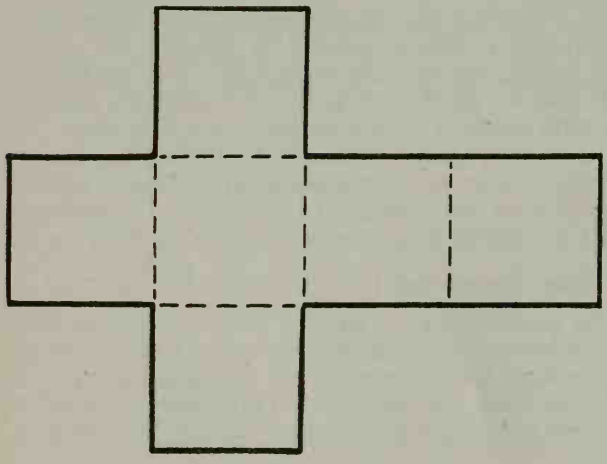
In our system, we are required to learn a number of different terms in each table,—grains, ounces, pounds; inches, feet, rods,—and perform long operations in all arithmetic problems pertaining to them. In the Metric System, one has only to learn the significance of the terms given above and apply them to the unit of whatever table one is considering. Observe the following table.

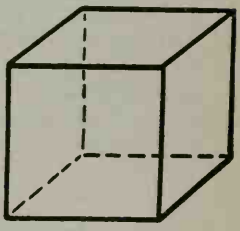
Liquid and dry measure	Measure of weight
Kiloliter	Kilogram
Hectoliter	Hectogram
Decaliter	Decagram
Unit — Liter	Unit — Gram
Deciliter	Decigram
Centiliter	Centigram
Milliliter	Milligram

In each case the numbers above the unit increase by tens; those below, decrease by tens. One has no doubt when one reads of a decigram that it is a quantity one-tenth of a gram, or that a hectoliter is a quantity 100 times as great as a liter. The meter, the unit in the table of length, has been sufficiently described. It is necessary to speak of the other units,—liter and gram. Observe that they are all someway bound up with the meter.

The Liter

Make a card board box, each edge of which shall be one decimeter long (how long is that?). Thus, cut out and crease the card board as follows, and then fold up as a box.





A box so constituted will hold a liter of dry sand; or if made water-tight, a liter of water, or any liquid. Fill it with sand and determine whether it is more or less than a quart of sand. About how many liters would there be in a gallon? In an ordinary barrel of water how many liters? In order to answer these questions, one must determine the number of cubic inches in a quart of water, and compare that amount with the number of cubic inches in a liter! How many cubic inches in a quart? How many in a liter? Prove this statement; a liter is very nearly 1.05 per cent of a quart.

The Gram

In the liter as we constructed it there are 1000 cubic centimeters, because there are 10 centimeters in a decimeter. The weight of a cubic centimeter of water is called a gram. Calculation shows that a gram is the equivalent of very nearly 15-1/2 grain, or an ounce of our common measurement is the equivalent of about 28-1/3 grams. Further we would discover that a kilogram (how many grams?) is very nearly 2-1/5 pounds; so to gain a fairly good impression of the weight of a kilogram, place in the hands a two-pound weight.

Formation of Tables

It is not necessary to present the various tables usually given in a study of the Metric System. Pupils can make their own tables, off hand, if they know what is the unit employed. The important point to understand is,—the derivation of the various units, that they are based on the meter, and to what measures the units are applied. In practical business life, people using the Metrical System make use of different parts of the table. Just as we in business ask for yards of cloth, not rods, or feet, or inches; they ask for so many meters of cloth. Also, as we would not think of saying that the distance between two cities was so many rods, but a number of miles; in a similar case, people using the Metric System, express the distance in kilometers, not meters.

Writing and Reading Metric Quantities

In writing any amount of Federal money, as 15 dollars and 15 cents, we make short work, as follows, $15.15. We can with equal ease write any metric quantity as 25 meters, 5 decimeters, and 6 centimeters thus 25.56 meters. 1 kilogram, 5 hectograms, and 5 decigrams is 1500.5 grams.

Write the following:

5 liters and 5 centiliters.
8 kilograms, 9 decagrams and 7 decigrams.

In going to school, Hortense walked 1 kilometer and 16 meters, which was four times as far as Jean walked. How far did Jean walk? (A simple division gives the answer.)

The examples are introduced to show the ease of solution in problems involving metric quantities. The intricate calculation of compound numbers is done away with.

It has been asserted, that if this system were adopted in this country, arithmetic work would be reduced one-third; and fully two-thirds of a year's work in school be saved to every child.

Surface Measures

To give completeness to this study, we should speak of surface measures. In our system, we have square feet, square rods, square miles, etc. It is hardly necessary to do more than remark that the square meter is the unit of metric surface. One has no doubt now that a square kilometer is 1,000,000 square meters (1,000 x 1,000) that is a quantity very nearly .385 per cent of a square mile. We might say that the area of Rhode Island is 3240 square kilometers. (Prove this statement). What is the area of your state in kilometers?

METRIC SYSTEM

Measures of Land

In our system, we have acres, square rods, etc., to express the amount of land in a farm, for instance. The Metric System applies a special name to the square meter, square decameter, and square hectometer when applied to land measurements as follows:

1 Sq. Hectometer = 1 Hectare
1 Sq. Decameter = 1 Are
1 Sq. Meter = 1 Centiare

This is one of the few exceptions in the Metric System of applying special names to multiples of the unit other than the terms employed by prefixing the terms deca and hecto. It would be found by calculation, that a hectare of land is nearly 2.47 acres.

Illustrative Problems

Probably no operation better illustrates the saving in work and calculation than operations in determining the area of land. We can illustrate from the following problem:

A rectangular field is 25 rods, 10 feet long; by 15 rods, 7 feet in width. What is the area?

Performing the operations necessary in our system—a long and intricate process—we would have:

2 Acres, 72 Sq. Rods, 28 Sq. Yds., 7 Sq. Feet, and 108 Sq. Inches.

(Prove this answer.)

The dimensions given in the problem, expressed in metric figures, give us a rectangle 128.778 meters long, by 77.571 meters wide. A simple multiplication yields 9989.438 square meters,—or 99 ares, 89.43 centiares, a much simpler operation. Calculation would demonstrate that these answers are the same in value. (Prove this statement.)

The General Observation

It is now time to take a general survey of the entire field. We see that the Metric System is a wonderfully simple, yet far-reaching application of the decimal system. In effect, it does away with the many different tables of compound numbers and the complex process involved in their operation. All that is necessary to know, is the quantity spoken of and the unit of that quantity. The tables and operations are in all cases the same.

Consider such a decimal number as this:

1516.147

Is it dollars we have in mind? We can read the expression at once. Is it metric extension? 1516 meters, 147 millimeters; or we can vary the reading 1 kilometer, 516 meters, 147 millimeters. We can multiply, and divide or subtract as simply as in any decimal. Is it metric weights we are considering? 1516 grams, 147 milligrams; or 1 kilogram, 516 grams, 147 milligrams. Is it some measure of capacity? 1516 liters, 147 milliliters. Finally is it a quantity of land? We see in it 1 hectare, 5 ares, and 16.147 centiares. One who understands the origin of the units, how they are connected with the meter; the terms denoting increasing and decreasing quantities, and is familiar with operations in decimals, readily understands the Metric System.

METRIC SYSTEM

Outline

This outline is intended to fix in our minds the necessary terms to be understood in a study of the metric system.

I. Units:
   - (a) Meter, unit of length
   - (b) Gram, unit of weight
   - (c) Liter, unit of contents
   - (d) Sq. Meter, unit of square measure
   - (e) Cubic Meter, unit of solid contents

II. Prefixes:
   1. For increasing quantities:
      - (a) Deca
      - (b) Hecto
      - (c) Kilo
   2. For decreasing quantities;
      - (a) deci
      - (b) centi
      - (c) milli

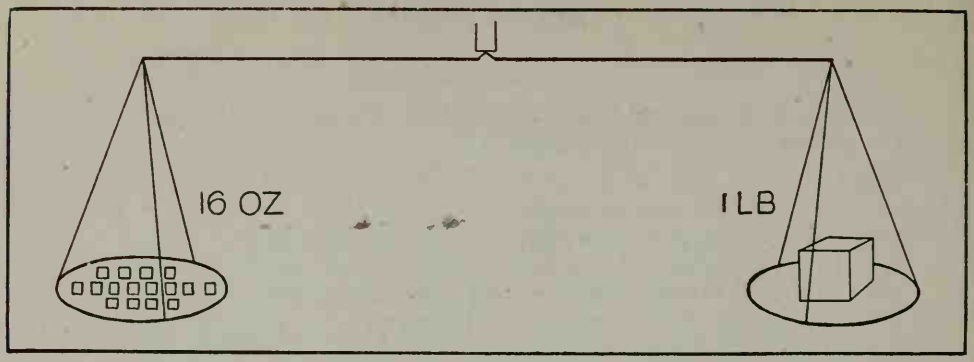
III. Special terms in land area:

Hectare	= 1,000,000	Sq. Meters
Are	= 100	Sq. Meters
Centiare	= 1	Sq. Meter

Equivalents

Tables of equivalents are not a part of this study. We are, however, so used to thinking in terms of our elaborate system, that it may give distinctness to our thoughts to introduce a few equivalents. Given the length of the meter, it is splendid exercise to determine the equivalents in each case by original operations.

1 Meter	=	39.37	Inches
1 Kilometer	=	.621	Mile
1 Gram	=	15.1/6	Grains nearly
1 Kilogram	=	2.2	Pounds nearly
1 Liter	=	1.05	Liquid Quarts
1 Sq. Meter	=	10.76	Sq. Feet
1 Hectare	=	2.47	Acres



COMMON MEASURES

Introduction. The following pages contain the weights and measures in common use in commerce and the various trades, together with simple methods for solving the practical problems that arise in connection with them.

WEIGHT

There are three tables of weight in use in different lines of business. They are known respectively as avoirdupois weight, troy weight and apothecary's weight. Troy weight is used by goldsmiths and in the mints of the United States, where the troy pound is the standard unit; apothecary's weight is employed by pharmacists in compounding medicines; avoirdupois weight is used in weighing all common articles, and the table is the only one of general interest. The entire table is as follows:

24 grains (gr.) = 1 pennyweight (pwt.).
20 pennyweights = 1 ounce (oz.).
16 ounces = 1 pound (lb.).
100 pounds = 1 hundredweight (cwt.).
20 hundredweights = 1 ton (T.).
2240 pounds = 1 long ton.

In practical business the grain and the pennyweight are not used. Weighing scales are graduated to weigh pounds, ounces and, for some lines of business, half ounces.

The laws of the various states require all merchants who buy and sell goods by weight to have their scales uniform with the standard kept by the state, and in many states inspectors are constantly employed testing scales in daily use. One who knowingly uses a false balance is liable to fine.

In some states such articles as were formerly sold by the quart, peck or dozen are now required to be sold by weight. This requirement is in the interest of the purchaser, since he is sure to get the exact quantity for which he pays.

Price. The price of commodities is based upon the unit by which they are most generally sold. Most spices, for instance, are sold by the ounce or in packages holding a fraction of a pound, as quarter-pound and half-pound packages. Tea, coffee, butter, sugar and practically all common articles sold in small quantities have the price based on the pound. In large quantities 100 pounds is, as a matter of convenience, the unit on which the cost is reckoned. Such substances as coal and hay are sold by the ton. In selling coal by the carload or boatload, 2240 pounds are usually reckoned as a ton.

EXERCISES

Suggestions. The following suggestions will be found helpful in the solution of problems.

1. Be sure that you have a clear idea of the unit of measure. Without such an idea no intelligent work can be done.

2. At all times use this unit as the basis of computation.

3. Solve your problems by logical anal-

ysis, instead of by rules which you may have memorized but do not understand.

4. When price and quantity are given in entire units, finding cost is merely a matter of multiplication. When fractional parts are included, take such part of the price per unit as the quantity is of the unit.

(a) Find the cost of 36 lb. of butter at 25 cents per lb.

Solution: $\$.25 \times 36 = \$9$.

(b) Find the cost of 1600 lb. of coal at $8 per ton.

First solution: 1600 lb. equal $\frac{4}{5}$ of a ton. $\frac{4}{5}$ of $\$8 = \$6.40$.

Second solution: Since one ton of coal costs $8. 100 lb. will cost 1/20 of $8, or 40 cents; $\$.40 \times 16 = \$6.40$.

Problems. Apply these methods of solution to the following problems:

1. A steer weighing 825 lb. was sold at $4.24 per 100. How much did the owner receive?

2. A farmer sold 4560 lb. of potatoes for $38. Allowing 60 lb. for a bushel, what was the price paid per bushel?

3. A coal dealer bought a shipload of coal—5000 long tons—@ $6.50, and sold it at the same price per ton of 2000 lb. What did he gain?

4. Find the cost of 3650 lb. hay @ $8 per ton.

5. Find the cost of $2\frac{3}{4}$ tons meal @ $\frac{3}{4}$ cent per lb.

6. Find the cost of 2140 lb. wheat @ 85 cents per bushel.

7. Find the cost of 2460 lb. oats @ 26 cents per bushel.

MEASURES OF LENGTH

Measures of length, commonly referred to in arithmetic as linear measure, are, in England and the United States, based on the imperial yard whose length was fixed by act of Parliament and adopted by the United States.

In countries where the metric system is used the meter is the standard unit. The meter is 39.37 inches.

Table

12 inches (in.) = 1 foot (ft.).
3 feet = 1 yard (yd.).
$5\frac{1}{2}$ yards = 1 rod (rd.).
$16\frac{1}{2}$ feet = 1 rod.
320 rods = 1 mile (m.).

A mile is 1760 yards or 5280 feet.

The furlong, $\frac{1}{8}$ of a mile, is not used in the United States.

Measures Commonly Used in Business

1 fathom (used in measuring the depth of the sea)	= 6 feet.
1 knot (used in navigation)	= 1.15 + miles.
1 league (used in navigation)	= 3 knots.
1 hand (used in measuring the heights of horses)	= 4 inches.
1 chain (used by civil engineers)	= 100 feet.
1 chain (used by land surveyors)	= 66 feet.
1 pace (used in measuring approximately)	= $\frac{1}{2}$ of a rod.
1 barleycorn (used in grading length of shoes)	= $\frac{1}{3}$ of an inch.

Linear measure is used in measuring distances on land; by carpenters in determining the size of objects; by merchants in selling cloth, carpet and such other commodities as are sold by the yard; by mariners in determining distances at sea and the depth of the ocean; and by everybody in making measurements incident to the affairs of everyday life.

The carpenter's rule is divided into feet and inches, and the inch is divided into halves, quarters, eighths and sixteenths. For measuring small objects the inch is the unit, and in the United States the foot is the unit for measuring large objects, except such articles as are sold by the yard; but in England the yard is often used where we use the foot. In measuring distances on land the rod and the mile are the units employed, the rod being used for short distances.

If one becomes familiar with each of these units of length, there will be no

necessity of reducing from one to the other.

EXERCISES

To test your knowledge of each of these units, perform the following experiments:

1. Provide yourself with a foot rule or a yard stick divided into feet and inches.

Without looking at the measure, draw on paper or some other surface:

(a) Horizontal lines one inch, six inches and one foot long respectively.

(b) Draw vertical lines of the same length as those given under (a). Measure each line and indicate its exact length on your drawing.

If too long, indicate the excess by a short line at the point where the line should be cut.

If too short, extend to the proper point by a dotted line.

2. Repeat the exercise until without hesitation you can draw each line accurately.

A practical working knowledge of these units is of great value, because the units for surface and solid measure are based upon them.

3. Make a mark on the ground, then walk from it five paces in a straight line. Measure the distance. Is it a rod? Repeat the exercise until you can measure a rod in five paces.

SURFACE MEASURE

Surface, or square, measure is used in measuring areas.

Table

144 square inches (sq. in.) = 1 square foot (sq. ft.).
9 square feet = 1 square yard (sq. yd.).
30¼ square yards = 1 square rod (sq. rd.).
272¼ square feet = 1 square rod.
160 square rods = 1 acre (A.).
640 acres = 1 square mile (sq. m.).

An acre = 4840 square yards, or 43,560 square feet.

All surface measurements are based upon the square unit.

Square units increase or decrease in the ratio of the squares of these respective linear units.

1 square foot = 144 square inches, or 12 square inches × 12.

1 square yard = 9 square feet, or 3 square feet × 3.

1 square rod = 30¼ square yards, or 5½ square yards × 5½.

The area of a surface is the number of square units it contains.

In measuring small objects the square inch, or more commonly the square foot, is employed; for larger objects, the square yard; and for land, the acre and square mile.

EXERCISES

1. Find the area of a square.

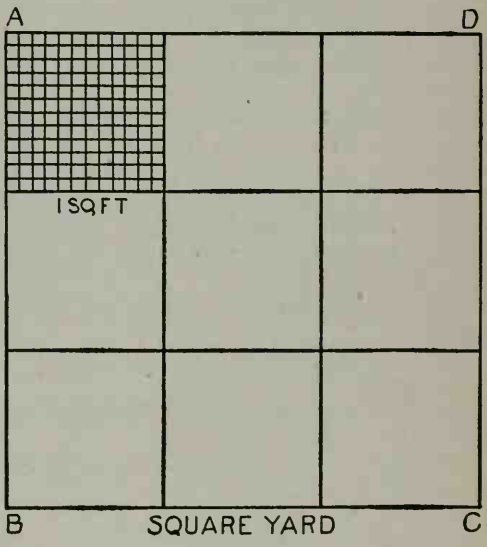


FIGURE 1

The square yard (Figure 1) contains three rows of three square units each, or nine square units.

Since the square yard measures three feet on a side, each unit is a square foot; therefore the area of the square yard is nine square feet.

2. To find the number of square inches in a square foot.

Look at the upper left-hand unit in the figure. Count the number of square

units in the first row. How many are there?

Count the number of rows. How many are there?

How many square units in all?

You found 12 rows of 12 square units each; therefore the number of square units in the square foot is 144; 12 square inches × 12 = 144 square inches.

The area of any rectangular surface is found by applying the same principle.

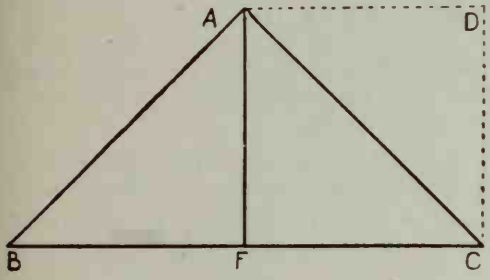


FIGURE 2

Therefore to find the area of a rectangle we apply the following rule:

Multiply the length by the breadth and express the product in square units.

3. To find the area of a triangle.

Let ABC (Figure 2) be a triangle having the sides AB and AC equal. Draw the line AF perpendicular to BC. This forms two triangles BAF and CAF.

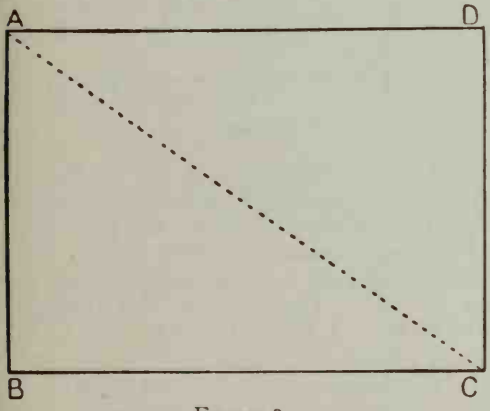


FIGURE 3

Since the triangles BAF and CAF have their respective sides equal, the triangles are equal. Place the triangle BAF on the triangle CAF, so that the line BA will fall on the line AC. This forms the square FADC, whose area is equal to the product of FA by FC expressed in square units.

FA is the altitude of the triangle ABC, and FC is one-half the base BC.

Again take the rectangle ABCD (Figure 3), whose area equals BC × AB. Construct the line AC, dividing the rectangle into two equal triangles, the area of each of which is one-half the area of the rectangle.

The area of the triangle ABC = BC × $\frac{1}{2}$ AF.

The area of ADC = AD × $\frac{1}{2}$DC.

From these illustrations we discover the principle:

The area of a triangle is equal to the product of its base by one-half its altitude expressed in square units.

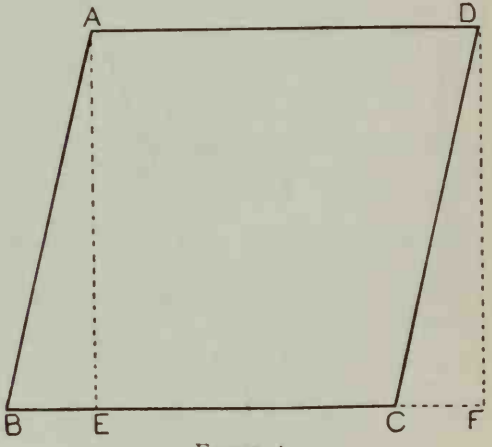


FIGURE 4

All plane surfaces are modifications of the square; hence the rules for finding the areas of these surfaces are based on the principle of reducing them to an equivalent square or rectangular parallelogram.

4. To find the area of a rhombus.

A rhombus can be changed to an equivalent square or rectangle and its area found in the same manner.

Let ABCD (Figure 4) be a rhombus. Construct the line AE perpendicular to AD and BC. Cut the triangle BAE

along the line AE and apply it to DC, so that the lines AB and DC coincide and you have the square AEFD, whose area is equal to AE × AD expressed in square units.

EXERCISES

1. Find the area of a parallelogram whose length is 8 ft. and breadth 6 ft.

Solution: 8 sq. ft. × 6 = 48 sq. ft., area.

2. How many square yards in the floor of a room 18 × 16 ft.?

3. A farmer has a rectangular field 40

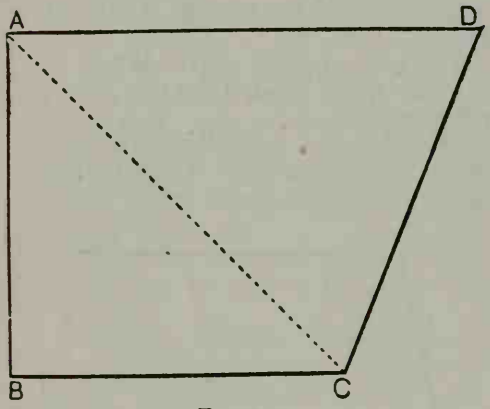


FIGURE 5

rods long and 25½ rods wide. How many acres does it contain?

4. Find the area of a rhombus measuring 7½ ft. on a side.

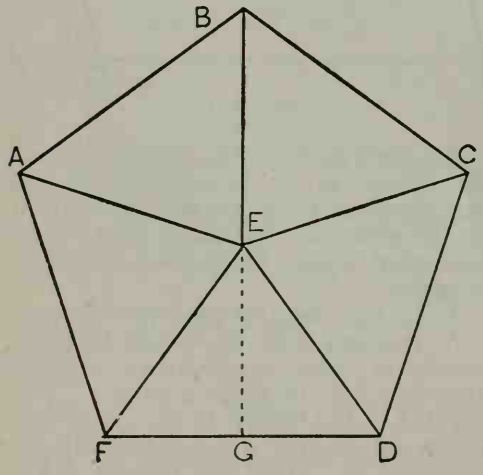


FIGURE 6

5. How many square yards in the walls of a room 12 by 15 ft. and 9 ft. high.

5. To find the area of a trapezoid.

In the trapezoid ABCD (Figure 5), construct the line AC, dividing the trapezoid into two triangles ABC and ADC. Both triangles have the altitude AB.

The area of the triangle ABC = AB × ½ BC, and the area of the triangle ADC = AB × ½ AD; therefore the area of ABCD = AB × ½ (BC + AD).

The area of a trapezoid is equal to the product of the altitude by one-half the sum of its parallel sides expressed in square units.

6. To find the area of a regular polygon having any number of sides.

In a regular polygon all sides are

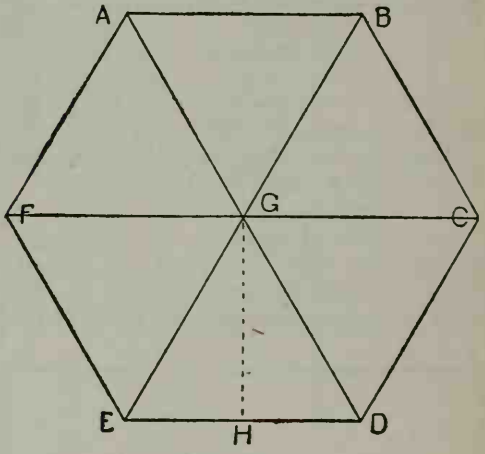


FIGURE 7

equal. This is shown in the pentagon ABCDF (Figure 6), and the hexagon ABCDEF (Figure 7). In the pentagon (Figure 6), construct the lines AE, BE, CE, DE and FE. Draw EG perpendicular to FD. The area of the triangle FED = EG × ½ FD. The figure is composed of five equal triangles whose bases are respectively AF, FD, DC, CB and BA, and whose common altitude is EG. but these sides form the boundary, or perimeter, of the polygon. A study of the regular hexagon shows that it is composed of six equal triangles whose

common altitude is GH and whose perimeter forms the bases of the triangles. These illustrations show that the area of a regular polygon is the sum of the areas of the triangles into which it can be divided. The area of a triangle is equal to the product of its altitude by one-half its base. Therefore:

The area of a regular polygon is equal to the product of one-half its perimeter by the perpendicular from its center to any side.

EXERCISES

1. Find the area of a triangle whose base is 9 ft. and altitude 5 ft.

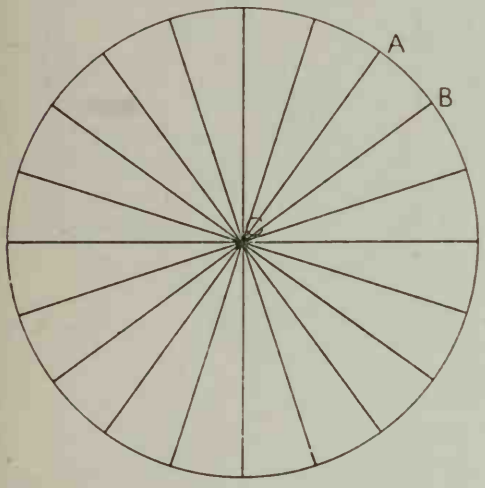


FIGURE 8

2. A barn is 30 ft. wide and the rafters meet 15 ft. above the eaves. How many square feet in the gable ends?

3. A has a triangular field, one side of which measures 45 rods. A perpendicular line from this side to the opposite point of the triangle is 26 rods long. How many acres in the field?

4. Find the area of a trapezoid whose altitude is 18 inches and whose parallel sides are respectively 20 and 27 inches.

5. The area of a trapezoid is 208 sq. ft. Its parallel sides are respectively 16 and 22 ft. What is its width?

7. To find the area of a circle.

A circle may be considered as a regular polygon with an infinite number of sides which form the circumference.

In the circle (Figure 8), construct any number of diameters. The radii form the sides of the triangles into which the circle is divided, and the sections of the circumference cut by these radii form the bases of these triangles. Since the radius is the distance from the center to the circumference of the circle it is also the altitude of these triangles.

Let BAC (Figure 9) be one of these triangles. Now let us return for a moment to the demonstration for finding the area of a triangle and apply it to this figure. We really see by the dotted lines that the triangle can be changed to an equivalent rectangle whose altitude is the same as that of the triangle and whose base is one-half that of the triangle.

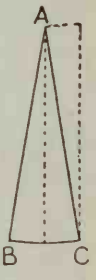


FIGURE 9

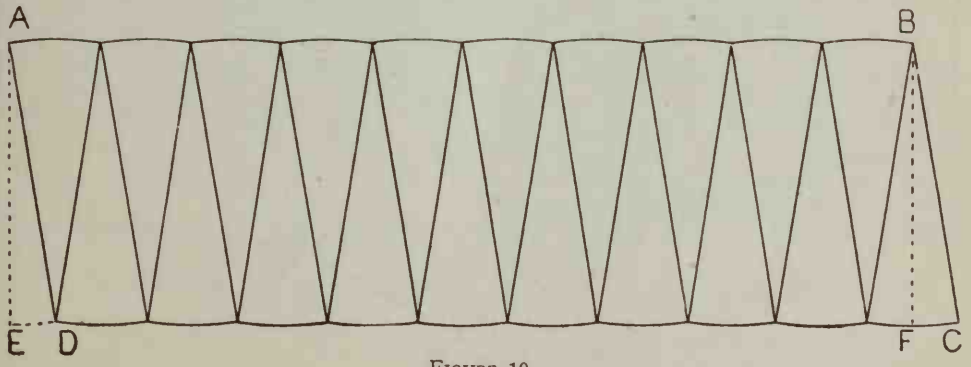


FIGURE 10

Now let us cut the circle along any of its diameters and divide each half into triangles indicated by the lines in Figure 8. Placing these triangles side by side so that the bases alternate, we have the parallelogram ABCD (Figure 10), whose altitude BC is the radius of the circle, and whose base DC is one-half the circumference. Draw the line BF perpendicular to the base DC at F. Cut the triangle FBC along the line BF and place it upon AD so that AD and BC will coincide. This forms the rectangle ABFE, whose area is equal to AE × EF. But AE is the radius of the circle and EF one-half the circumference. Therefore:

The area of a circle is equal to the product of the radius by one-half the circumference expressed in square units.

The sides of the rectangle ABCD are not straight lines, but the greater the number of triangles into which the circle is divided, the nearer straight lines these sides become, so that by continued divisions they become practically straight lines and the principle holds.

The circumference of a circle is 3.1416 times its diameter. For all practical purposes this number can be reduced to $3\frac{1}{7}$.

If the diameter or circumference of a circle is known its area can readily be found.

Another formula for computing the area of a circle found by geometry is: The area equals the product of the square of the diameter by .7854.

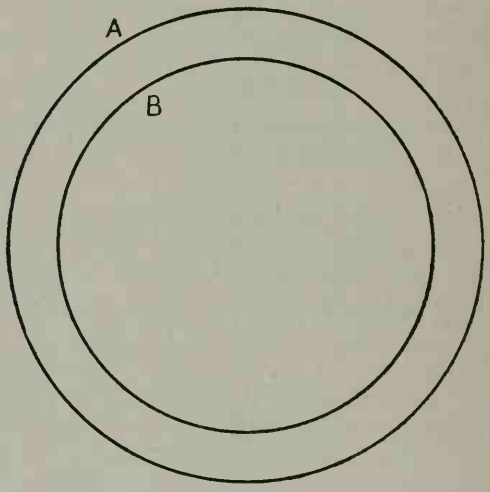


FIGURE 11

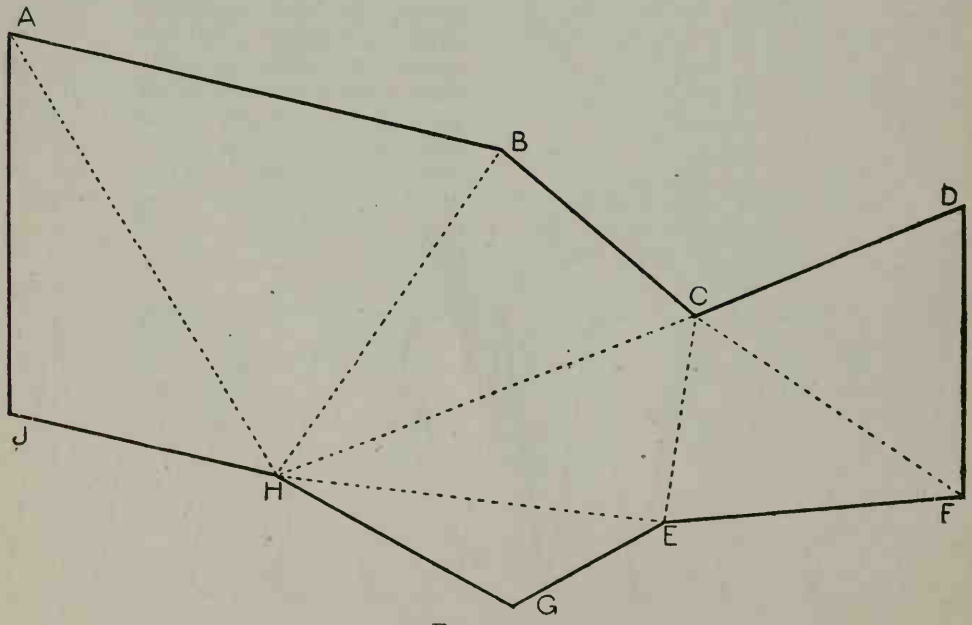


FIGURE 12

EXERCISES

1. What is the area of a circle 7 inches in diameter?

2. What is the area of a circle whose circumference is $27\frac{3}{7}$ inches?

3. A circular race track A (Figure 11) encloses a plot of ground B, 100 rods in diameter. How many acres in the plot?

The track is 6 rods wide. What is the area of the track?

8. To find the area of irregular surfaces.

The area of any irregular plane surface can be found by separating it into triangles and finding the areas of the triangles. To illustrate: The area of ABCDFEDHJ (Figure 12) is equal to the areas of the triangles into which it is separated by the dotted lines. The altitudes of the triangles must, of course, be known. Problems of this nature seldom occur, but surveyors sometimes make use of this method for finding the area of irregular tracts of land.

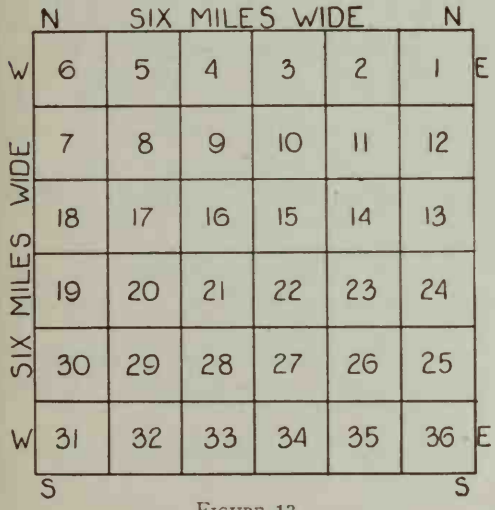


FIGURE 13

9. Measuring land. An account of our public lands is given in the article *Lands, Public*, page 1582, THE HOME AND SCHOOL REFERENCE WORK.

Government lands are surveyed on a rectangular plan, by means of which they are divided into townships six miles square. North and south lines between townships are called meridians, and east and west lines, range lines. Prime meridians are those from which ranges are numbered east and west, and base lines are range lines from which townships are numbered north and south. Townships are located with reference to these lines. In describing land, T stands for township; R, for range; N, for north; S, for south; E, for east; W, for west, as T 3 N, R 2 E third principal meridian.

Each township is divided into sections one mile square, containing 640 acres and numbered as shown in the diagram. (Figure 13.)

Each section is divided into quarters and each quarter section into halves and quarters, as shown in Figure 14.

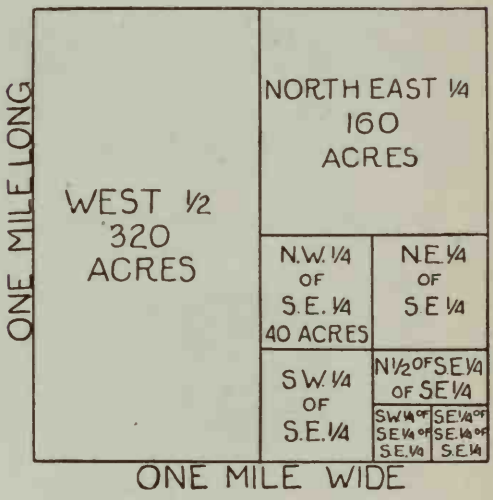


FIGURE 14

A farm is described in a deed by stating the divisions of the section, number of the section and the township in which it is located, as:

The SW $\frac{1}{4}$ of sec. 25, T 4, R 3 E the fourth prime meridian. Find the location on the diagram of the township, Figure 13.

CUBIC MEASURE

Use. Cubic measure is used in measuring volume and has many practical

applications. Like surface measure its units are based on units of length—the inch, the foot and the yard. They increase in the ratio of the cubes of the linear units to which they correspond.

Table

1728 cubic inches (cu. in.) = 1 cubic foot (cu. ft.).

27 cubic feet = 1 cubic yard (cu. yd.).

128 cubic feet = 1 cord.

1. To find the volume of a rectangular solid.

The solid ABCDEFG (Figure 15), represents a cubic yard. What part of it represents a cubic foot?

How many cubic feet in the row EF? How many rows in the layer EFG? How many layers does the figure contain? How many cubic feet in the cubic yard?

In a similar manner proceed to find the number of cubic inches in a cubic foot.

These exercises should lead to the discovery of the following principle:

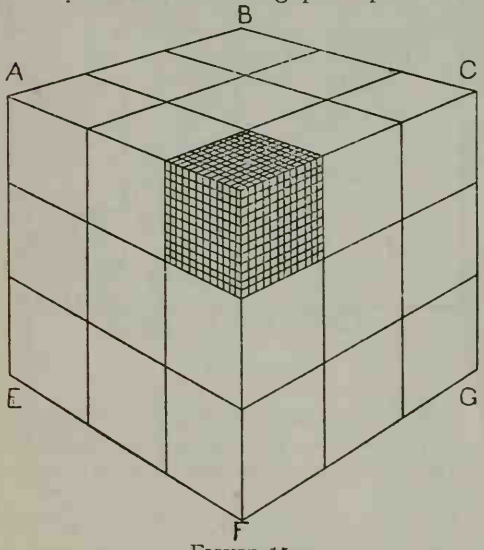


FIGURE 15

The area of a rectangular solid is equal to the product of its length, breadth and altitude expressed in solid units.

2. To find the contents of a rectangular prism.

In the prism ACDBIJK (Figure 16), how many solid units in EFHGIJK? How many layers in the prism? What are the contents of the prism? The solution of this class of problems should take this form:

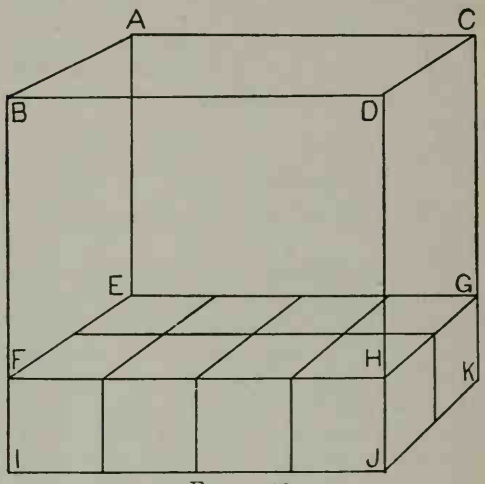


FIGURE 16

2 rows of 4 solid units = 8 solid units.

4 layers of 8 solid units = 32 solid units, contents of the prism, or

4 cubic feet × 2 × 4 = 32 cubic feet.

EXERCISES

1. How many cu. ft. in a block of granite measuring 4 by 3 by 6½ ft.?

2. How many cu. ft. in a bin 8 ft. long, 7 ft. wide and 9 ft. deep?

3. A schoolroom 18 × 25 × 11 ft. is occupied by 30 pupils. How many cu. ft. of air to a pupil?

4. What is the cost of a block of marble 5 ft. long, 3 ft. wide and 2 ft. high at $2.25 per cubic foot?

5. To find the contents of other solids.

The same principle holds in the measure of volume as in the measure of surface. All solids are modifications of the cube, and rules for finding their contents are simply rules for reducing them to equivalent cubes or rectangular prisms.

To find the volume of a regular prism with any number of sides, find the area of the base according to the principle for

finding the area of a regular polygon, multiply this by the altitude of the prism and express the product in solid units.

The area of the cylinder AB (Figure 17) is found in a similar manner. At this point turn back and review the discussion of finding the area of a circle. Suppose this cylinder was 1 foot high. It would contain as many cubic feet as its base contains square feet, but the cross sections C and D show that it is 3 feet high; therefore its volume is three times the number of cubic feet in the first section. Therefore: To find the volume of a cylinder, find the area of the base, multiply this by the altitude and express the product in solid units.

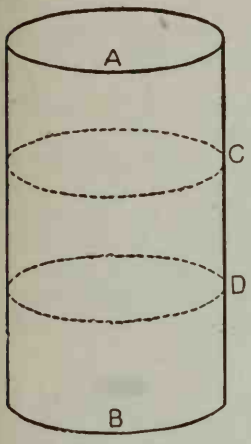


FIGURE 17

The convex surface of a cylinder is equivalent to that of a rectangle whose dimensions are the circumference and altitude. Therefore the area of the convex surface of a cylinder is equal to the product of the circumference by the altitude expressed in square units.

To find the entire surface, add the area of the bases to the convex surface.

EXERCISES

1. How many cu. in. in a cube measuring $\frac{1}{2}$ ft. on a side?

2. Find the volume of a square prism 150 ft. on a side and 40 ft. high.

3. A cylindrical silo is 15 ft. in diameter and 30 ft. high. How many cu. ft. of ensilage can it hold?

4. How large a piece of sheet iron will be required to make a length of 6-inch stove pipe $2\frac{1}{2}$ ft. high, allowing $\frac{1}{2}$ inch for the seam?

5. A rectangular tank 6 ft. long and

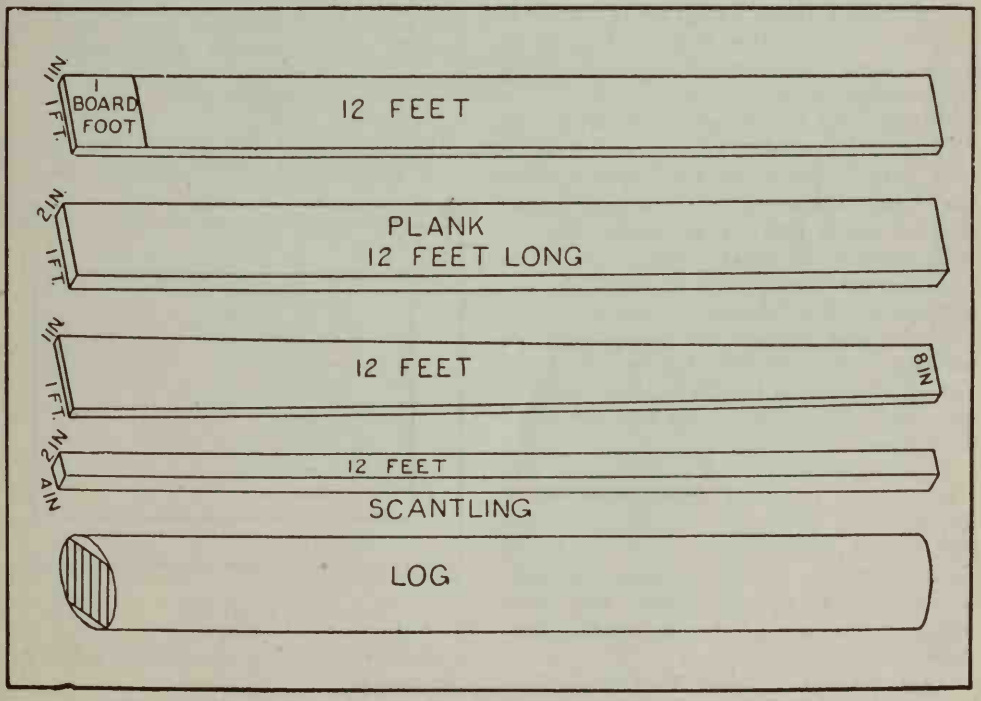


FIGURE 18

4½ ft. wide holds 108 cu. ft. of water. How deep is it?

MEASURING LUMBER

The Board Foot. The unit in measuring sawed lumber is the board foot. This is a board one foot square and one inch thick or its equivalent. The board foot contains 144 cubic inches.

Measurements. The first figure in the cut (Figure 18) shows a board 1 ft. wide and 12 ft. long. Such a board contains 12 board feet (bd. ft.). Boards less than an inch in thickness are reckoned as an inch thick.

Therefore to find the number of board feet in boards an inch or less in thickness:

Multiply the length by the width in feet.

If the board is wider at one end than at the other average the width.

If the board is more than an inch thick, multiply the product of the length by the width by the thickness according to the following rule:

All lumber from 1 inch to 1¼ inches is reckoned as 1¼ inches thick; all 1¼ to 1½ inches as 1½ inches thick; 1½ to 2 inches as 2 inches thick.

A board 12 feet long, 1 foot wide and 1¼ inches thick will contain ¼ more board feet than a board of the same dimension 1 inch thick. It will, therefore, contain 15 board feet; if 1½ inches thick it will contain 18 board feet. A plank is 2 inches thick, and if of the same dimensions it contains 24 board feet.

Joists and timber are sold by board measure. To find the number of board feet, multiply the length by the width in feet and this product by the thickness in inches.

Lumber is sold by the thousand feet (M). The price in dollars per M is the price in cents per board foot. At $20 per M lumber is 2 cents per board foot; at $25 it will be 2½ cents; at $30, 3 cents; and so on; hence the price for any number of feet is easily computed.

The number of board feet in a log is found by determining how many boards can be cut from it and multiplying the number of feet in a board by this number. If sawed into inch boards ⅛ is usually deducted for the kerf of the saw. In lumbering, however, logs are gauged by special measures, so marked that, from the mean diameter and length of the log, they tell the number of feet.

Shingles. Shingles are 16 inches long and of varying widths, but in counting, a shingle is reckoned 4 inches wide. Shingles are packed in bunches of 250 each and sold by the thousand. They are laid ⅓ or ¼ to the weather. When laid ⅓ to the weather it requires 6 shingles to the square foot; if ¼ to the weather, 9 shingles to the square foot are required.

Lath. Laths are 4 feet long and 1½ inches wide. They are packed in bundles of 100 each. 1000 laths will cover 70 square feet of wall.

Clapboards. Clapboards are usually cut 4 feet long and 6 inches wide. They are packed in bundles of 25 each and laid 3½ or 4½ inches to the weather.

EXERCISES

1. The log in the cut is 12 ft. long. The boards that can be sawed will be 8

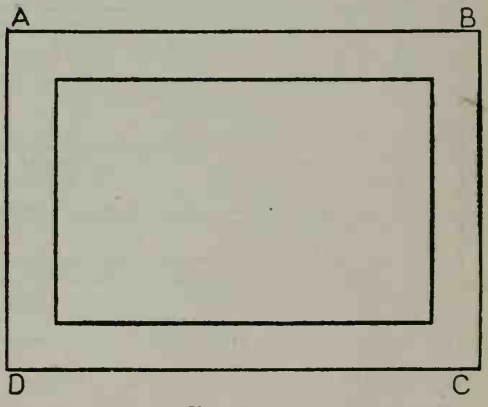


FIGURE 19

inches wide. How many board feet will they measure?

2. At $25 per M, what will be the cost

of boards for the floor of a room 24×30 ft., allowing 3 per cent for waste?

3. The figure ABCD (Figure 19) is a garden whose outer dimensions are 250 and 175 ft. respectively. A board walk 20 ft. wide was laid around the garden just within the border. The boards were $1\frac{1}{2}$ inches thick and were laid on 4 pieces of 2×6 joist. What was the cost of the lumber at $22.50 per M?

4. At $4 per M what will be the cost of shingles for the roof of a barn 60 ft. long, with rafters 25 ft. long, the shingles to be laid $\frac{1}{3}$ to the weather?

5. How many laths will be required to cover the walls and ceiling of a room 18 ft. long, 15 ft. wide and 9 ft. high, deducting $12\frac{1}{2}$ per cent for openings?

MEASURING WOOD

The Cord. Wood is measured by the cord. Originally a cord of wood was a pile 8 feet long, 4 feet wide and 4 feet high, and containing 128 cubic feet. This is the measure for a cord of 4-foot wood, but now wood of all lengths is sold by the cord. Stove wood is usually 16 inches long, so that 1 cord of 4-foot wood will make 3 cords of stove wood. In measuring, the length and height are used; that is, whatever the length of the wood, a pile 8 feet long and 4 feet high is a cord of that wood. Therefore to find the number of cords in a pile of wood:

Average the height, multiply the length of the pile by the average height and divide the product by 32.

EXERCISES

1. How many cords in a pile of 4-foot wood 100 ft. long, 6 ft. high at one end and 8 ft. high at the other?

2. At $3 per cord, what is the above pile of wood worth?

3. A bought a pile of 4-foot wood 200 ft. long and 7 ft. high for $5.60 a cord. He paid $1.50 a cord for working it up into stove wood and sold the stove wood for $2.50 a cord. What did he gain?

4. A woodhouse measures $50 \times 30 \times 9$ ft. How many cords of stove wood will it hold if closely piled?

BRICK AND STONE WORK

Brick Work. An ordinary brick measures $8 \times 4 \times 2$ inches and contains 64 cubic inches; 22 bricks will lay a cubic foot of wall. Layers of mortar are usually $\frac{1}{2}$ inch thick. $1\frac{1}{2}$ barrels of lime and $\frac{2}{3}$ cubic yard of sand will make mortar for 1000 bricks. A good bricklayer will lay 1800 bricks a day. Bricks are sold by the thousand (M).

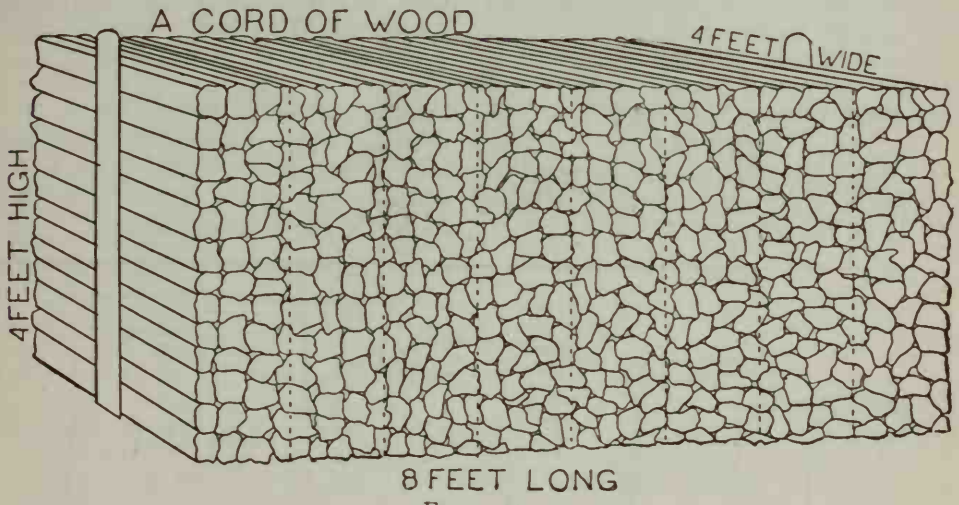


FIGURE 20

In estimating brick work, masons measure the outside of the walls. This counts the corners twice but is considered fair because of the extra work required in laying the corners. No allowance is made for doors and windows unless such allowance is stipulated in the contract.

In estimating the amount of material, the corners are counted twice because of the waste incurred in laying them, but openings for doors and windows are deducted.

2. At $10 per M for bricks and $2 per M for laying, what will be the cost of the walls enclosing a rectangular cistern 18 by 22 ft. inside measure and 8 ft. deep, the walls to be $1\frac{1}{2}$ ft. thick?

3. How many perches of masonry in the walls of a cellar 25 by 32 ft. and 8 ft. deep, the walls being $2\frac{1}{2}$ ft. thick?

4. How many bricks will be required to build a house 30 by 85 ft. and 36 ft. high, the walls to be 16 inches thick, and deducting 500 cu. ft. for openings?

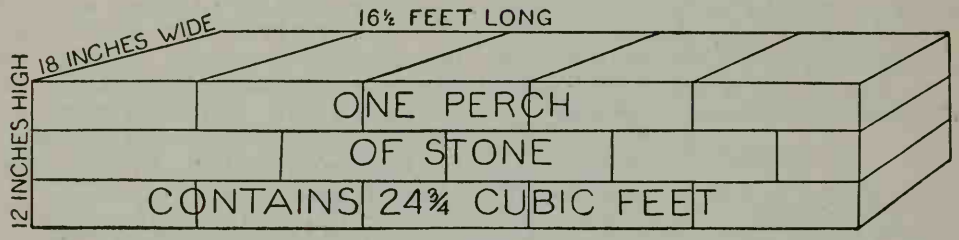


FIGURE 21

Stone Work. Stone work is measured by the perch or the cubic yard. A perch of masonry is $24\frac{3}{4}$ cubic feet, but it is usually estimated at 25 cubic feet.

A cord of stone will lay 100 cubic feet of wall. This will require $1\frac{1}{4}$ barrels of lime and a cubic yard of sand.

EXERCISES

1. How many bricks will be required to build a wall 300 ft. long, 8 ft. high and $1\frac{1}{2}$ ft. thick?

5. A city square measures 40 by 60 rods. If laid 8 by 4 inches to the surface, how many bricks will be required for a walk 8 ft. wide, constructed just within the border of the square?

LIQUID MEASURE

Units. The units in liquid measure are the gill, the pint, the quart and the gallon. The gallon, equal to 231 cubic inches, is the standard unit.

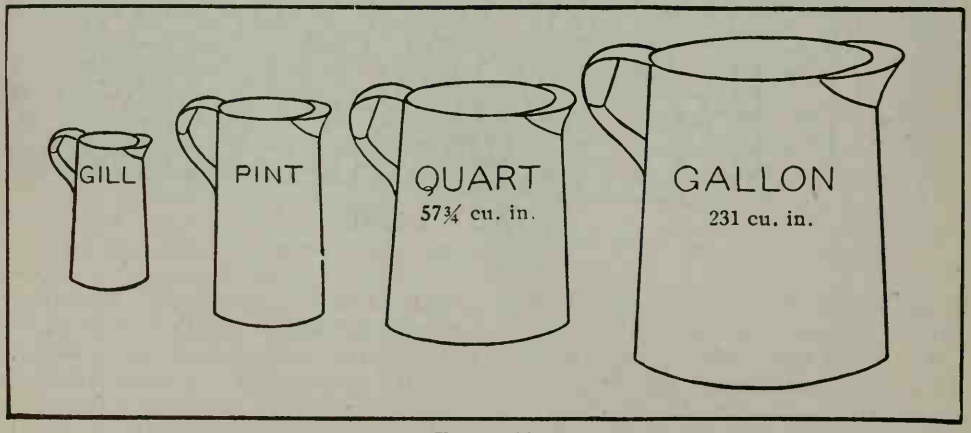


FIGURE 22

Table

4 gills (gi.) = 1 pint (pt.).
2 pints = 1 quart (qt.).
4 quarts = 1 gallon (gal.).
A cubic foot = nearly $7\frac{1}{2}$ gallons.
A barrel (bbl.) in most states equals $31\frac{1}{2}$ gallons.
A kerosene barrel contains 52 gallons.
A quart = $57\frac{3}{4}$ cubic inches.

Uses. Liquid measure is used in measuring all liquids that are bought and sold, as milk, molasses, kerosene, gasoline, etc.

Most liquids are sold by the gallon, but molasses, vinegar and a few others handled by retail grocers are frequently sold by the quart or pint.

Wines and spirituous and malt liquors are placed on the market in quart and pint bottles as well as in larger bulks.

In practically all cases the price is based on the gallon. Computation is easy when the quantity is known, the cost being simply the product of the price per unit by the quantity.

The capacity of cisterns and other cylindrical vessels is found by finding the volume of the vessel in cubic feet and multiplying this number by $7\frac{1}{2}$.

To find the capacity of a cask, multiply the difference between the head and bung diameters in inches by .65, and add the product to the head diameter for the mean diameter. Multiply the square of the mean diameter by the length of the cask in inches and divide the product by 294. The quotient is the capacity of the cask in gallons.

EXERCISES

1. A rectangular tank is 6 ft. square and 5 ft. deep. How many gallons does it contain?

2. A cask is 32 inches long, 24 inches head diameter and 28 inches bung diameter. How many gallons does it contain?

3. A cylindrical tank is 15 ft. in diameter and 12 ft. high. How many gallons does it hold?

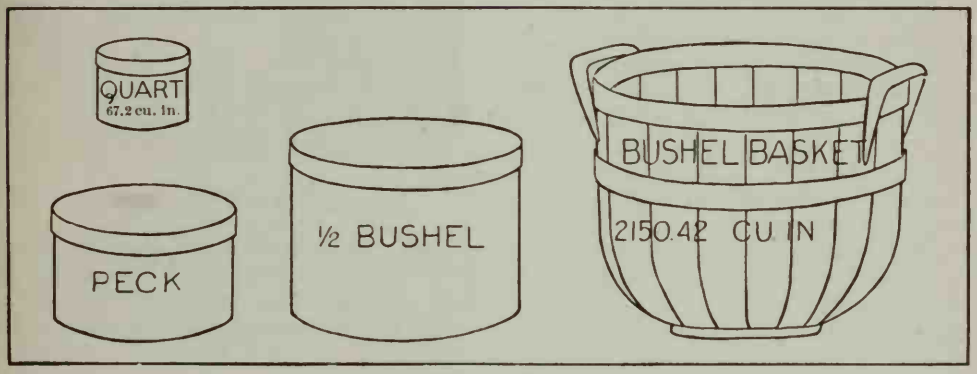


FIGURE 23

DRY MEASURE

Units. The standard unit in dry measure is the bushel. A bushel equals 2150.42 cubic inches.

Table

2 pints (pt.) = 1 quart (qt.).
8 quarts = 1 peck (pk.).
4 pecks = 1 bushel (bu.).

The quart in dry measure equals 67.2 cubic inches and must not be confounded with the quart in liquid measure, which equals $57\frac{3}{4}$ cubic inches.

A heaped bushel, which equals about $1\frac{1}{4}$ struck bushels, is used in measuring potatoes, apples, corn in the ear and some vegetables.

Uses. Dry measure is used in measuring grain, large fruits, vegetables and sometimes lime and coal. The measures

in most general use are the bushel, half bushel and peck. Retail grocers sell beans and a few other commodities by the half peck and by the quart.

FARMERS' MEASURES

Value. Every farmer has need of reference tables and simple rules for estimating values and quantity. Those given below are in general use.

Weights and Measures Used in Business

1 gallon of water	= about 8⅓ lb.
1 gallon of milk	= about 8.6 lb.
1 gallon of kerosene	= about 6½ lb.
1 cubic foot of water	= 62½ lb.
1 bushel of wheat	= 60 lb.
1 bushel of beans	= 60 lb.
1 bushel of clover seed	= 60 lb.
1 bushel of potatoes	= 60 lb.
1 bushel of shelled corn	= 56 lb.
1 bushel of ear corn	= 70 lb.
1 bushel of rye	= 56 lb.
1 bushel of barley	= 48 lb.
1 bushel of oats	= 32 lb.
1 barrel of flour	= 196 lb.
1 barrel of beef or pork	= 200 lb.

A struck measure = 1¼ cu. ft.
A heap bushel = 1½ cu. ft.
A ton of hay in stack = 450 cu. ft.
A ton of anthracite = 35 cu. ft.
A cubic foot of water weighs 1000 oz. or 62½ lb.

Bins and Boxes. To find the contents of a bin or wagon box in bushels, find the contents in cubic feet and multiply by .8 for struck bushels or by .66 for heaped measure. If the box or bin is flared at the sides, take ½ the sum of the top and bottom widths for the mean width.

Hay. Hay is sold by the ton. Stacks are usually conical or oblong. When conical, the body of the stack is a cylinder and the top a cone. Find the contents of the body and the top separately and add. The contents of the conical top will be ⅓ that of a cylinder of the same base and altitude.

In case the stack is oblong like the figure, find the contents of the body, which is in the form of a rectangular

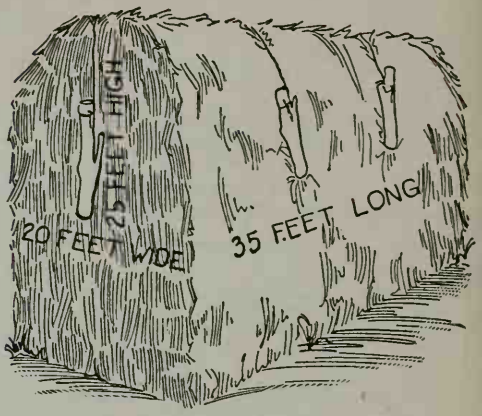


FIGURE 24

prism, and the contents of the top, which will be either a triangular prism or a half cylinder, and add.

To find the number of bushels of corn in a crib:

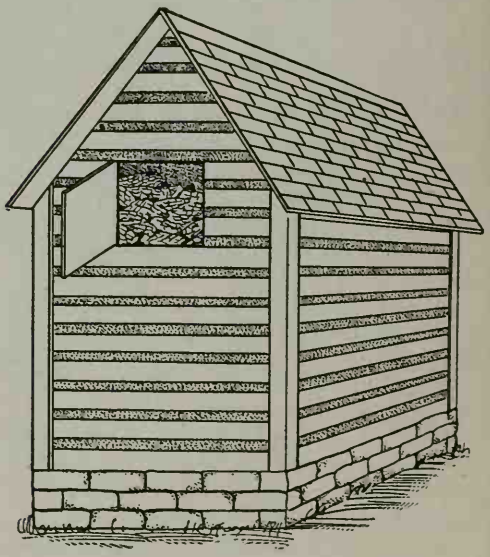


FIGURE 25

Find the capacity of the crib in cubic feet; multiply this by .63 for corn in the ear. For shelled corn, divide the capacity of the crib by 7 and multiply the

quotient by 3. Seven cubic feet of ears make 3 bushels of shelled corn.

To find the capacity of a cylindrical cistern in gallons:

Find the capacity in cubic feet and multiply this by $7\frac{1}{2}$.

EXERCISES

1. A bin is 16 by 20 by 5 ft. How many bushels of wheat will it contain?

2. A wagon box is 8 ft. long, 3 ft. wide and 2 ft. deep. How many bushels of shelled corn will it contain?

3. How many bushels in a carload of wheat weighing 30 tons?

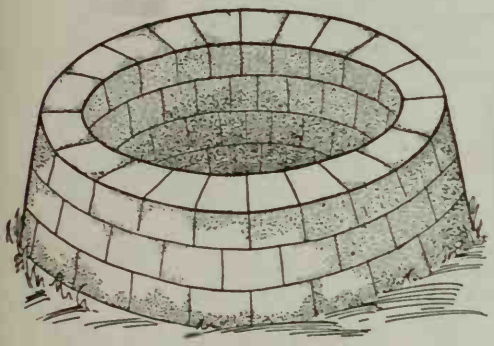


FIGURE 26

4. A cylindrical cistern is 8 ft. in diameter and 9 ft. deep. What is its capacity in barrels?

5. How many tons in a mow of hay, measuring 20 by 25 by 14 ft.?

6. A corn crib is 40 by 12 by 10 ft. How many bushels of corn in the ear will it contain? How many bushels of shelled corn will this make?

LONGITUDE AND TIME

Definitions. Longitude is distance east and west from a given meridian.

A meridian is one-half of a meridian circle and extends from pole to pole.

A prime meridian is a meridian from which longitude is reckoned. The meridian passing through Greenwich, England, is the one from which longitude is generally reckoned, though each nation may have its own. The United States Government uses the meridian passing through Washington, D. C., as the prime meridian for this country.

Places east of the prime meridian are in east longitude; places west, in west longitude.

Application. Longitude is reckoned 180° east and west of the prime meridian.

The International Date Line is fixed practically on the 180th meridian from Greenwich.

Since there are 360° in the circumference of the earth, and the earth turns upon its axis once in 24 hours, 15° of longitude pass under the sun in one hour.

$$360° \div 24 = 15°.$$

Therefore to find the difference in time between two places, divide the difference in longitude by 15.

Conversely, to find the difference in longitude between two places when the difference in time is given, multiply the difference in time by 15 and reduce the product to degrees, minutes and seconds.

Since the earth rotates from west to east, places east of the principal meridian will have faster time than those west of it. The clock dial in Figure 27 shows the time of the principal cities of the world, when it is 9 o'clock a. m. in Chicago.

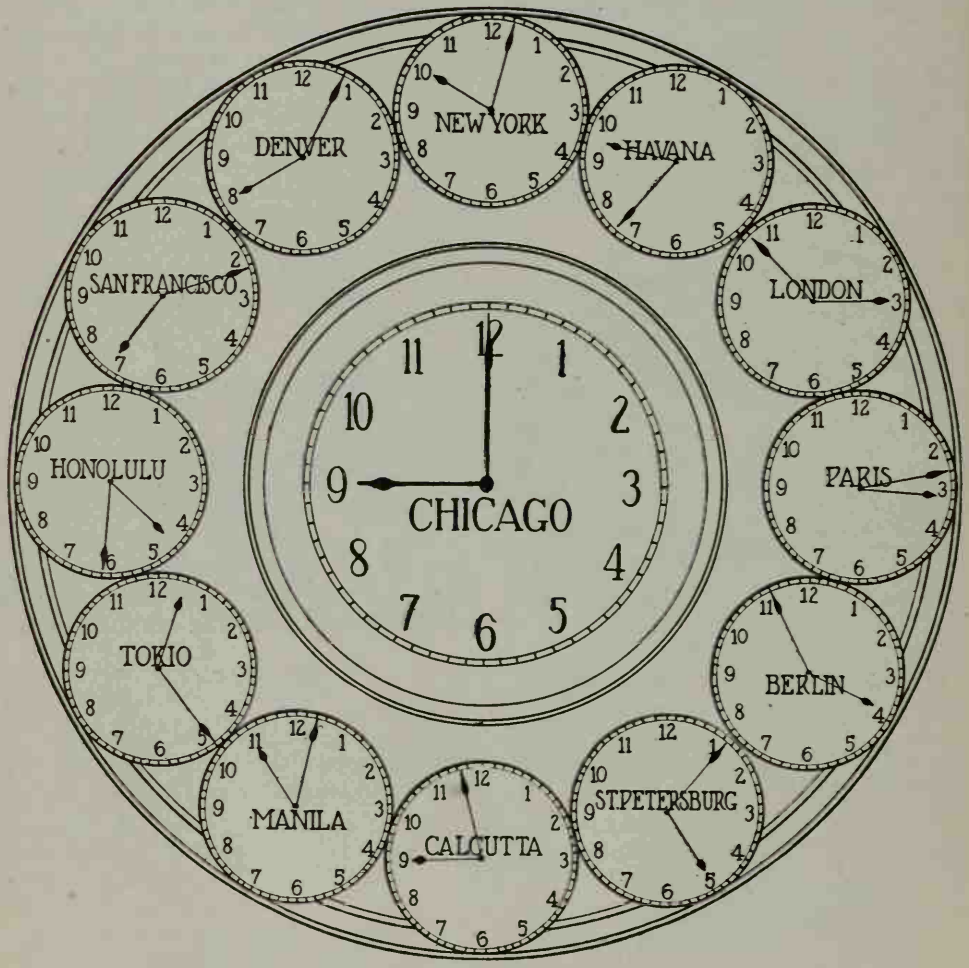


FIGURE 27

ELEMENTARY ALGEBRA

BY MYRA J. MISNER

INTRODUCTION

Relation to Arithmetic

By some educators algebra is considered as a sort of general arithmetic. Its study enables the pupils to grasp the underlying principles of mathematics more firmly than is possible by the study of arithmetic alone, and for this reason in all the best schools the elements of algebra are studied in the eighth grade either as a separate branch or in combination with arithmetic.

Many problems which at first seem difficult of solution by arithmetic are easily solved by algebra, by letting a letter represent the quantity to be found, and then combining the statements into an equation. To illustrate:

John and Henry together have \$96. John has $\frac{3}{5}$ as much money as Henry. What sum does each have?

By conditions of the problem the entire amount, \$96, is divided into 8 parts, of which John has 3 and Henry 5.

$\$96 \div 8 = \$12$, one share.
$\$12 \times 3 = \$36$, John's part.
$\$12 \times 5 = \$60$, Henry's part.

According to algebra the problem would be solved as follows:

Let x = Henry's part.

$\frac{3}{5}$ of x, or $\frac{3x}{5}$ = John's part.

$$x + \frac{3x}{5} = \$96.$$

Solving, $5x + 3x$, or $8x$, $= \$480$.

$x = \$60$, Henry's part.

$\frac{3x}{5} = \frac{3}{5}$ of $\$60 = \$36$, John's part.

Problems in proportion can be solved more easily by algebra than by arithmetic, as can many problems in percentage.

These illustrations are given to show the student that algebra has a practical as well as a theoretical side.

Assistance Given

The following pages are designed especially to help the beginner over the difficult points which always are more or less discouraging. This is done by giving more comprehensive explanations than are found in the textbook.

POSITIVE AND NEGATIVE QUANTITIES

Two Sorts of Quantities

One of the chief points that distinguishes algebra from arithmetic is the use of two sorts of quantities. If some one says that on a certain day the temperature has changed 10°, does this statement, as it stands, mean anything definite? No; for we do not yet know whether the change was a rise of 10° or a fall of 10°, and the one is just the *opposite* of the other. Changes like this, of an opposite kind, are very common. Many quantities can exist in either of two *opposite* states. Thus:

Gaining $5.00; losing $5.00.
Going 10 miles east; going 10 miles west.
On a thermometer, 7° above zero; 7° below zero.
Increasing in weight 10 pounds; decreasing in weight 10 pounds.
Adding 3; subtracting 3.
15° north of the equator; 15° south of the equator.

In algebra two quantities of opposite kinds but of the same amount are distinguished from each other by + and − signs.

A gain of $10 we would call +$10.
A loss of $10, −$10.

A quantity thus preceded by a + sign we call a *positive quantity;* one preceded by a − sign, a *negative quantity.*

Either of the opposites could be regarded as positive. But mathematicians have a habit of looking upon certain sorts of quantities as positive, their opposites as negative.

In the above list, the quantities first named are regarded as + ; their opposites as − .

Positive and negative integers may be represented by means of a scale, numbers above 0 being positive; numbers below, negative.

−5, −4, −3, −2, −1, 0 +1, +2, +3, +4, +5

From this we can see that 0 is the dividing point between the + and the − quantities; that +5 and −5, for instance, are equally distant from 0, but in opposite directions.

SUBTRACTION

Subtraction of Signed Numerical Quantities

We know from arithmetic that when we add ("put together") 7 and 3 we have 10, their sum; when we take away 3 from 10, we have left 7.

We can actually perform additions and subtractions with concrete objects. We can add 3 apples to 7 apples, obtaining 10 apples. Then we can take away, or subtract, the 3, and have the 7 left again. We see that adding 3 and subtracting 3 are opposite operations: adding +; subtracting −.

In algebra, we reason, therefore, that if we can make the number we are subtracting into the *opposite* kind of a quantity, and then *add* it, we have actually performed subtraction. We can make the subtrahend into the *opposite* kind of a quantity by changing its sign. So we change its sign and add.

Subtract:		Add:	
10		10	
6		−6	
4	(Arithmetical subtraction)	4	(Algebraic subtraction)

To	$4a+2b+c$	From	$4a+2b+c$
Add	$-2a-b-c$	Take	$2a+b+c$
	$2a+b$		$2a+b$

In each case the results are the same. In practical work in algebra, however, it is customary to perform the change of sign of the subtrahend *mentally,* to *imagine* the sign of the subtrahend changed, and then add. When we say *add,* moreover, we mean add algebraically.

Looking at the matter in another way: in arithmetic, we learned that subtraction means finding that number, the *remainder,* which, added to the *subtrahend,* will produce the *minuend.* Algebra does not contradict arithmetic, although it goes beyond it. Subtraction means the same in algebra. If, therefore, we add the remainder to the subtrahend we obtain the minuend.

I		II	
Subtract:		Add:	
Minuend	7	Subtrahend	5
Subtrahend	5 (Change sign mentally and add.)	Remainder	2
Remainder	2	Minuend	7

We may now state our rule:

To subtract one signed quantity from another: change the sign of the subtrahend mentally and add the result to the minuend.

To bring home to ourselves what precise meaning each word of this rule conveys, let us take four very simple illustrations:

M. +8	M. +3	M. −3	M. −8
S. +3	S. +8	S. −8	S. +3
R. 5	R. −5	R. +5	R. −11

In our first example, when we imagine the sign of the subtrahend 3 changed, making −3, and then add −3 to 8, algebraically, our result is 5. This is the same result we should have had in arithmetic.

In our second example, changing mentally the sign of the subtrahend, we have −8. Adding −8 to 3, our result is −5. This is the same method as we used in the first. We have, however, performed a subtraction impossible in arithmetic.

In our third example, in the same manner we change the sign of the subtrahend mentally, obtaining 8, and add this to −3. Result, 5.

In the fourth, the subtrahend becomes −3, which, added to −8, produces −11.

Subtraction of Terms. In subtracting terms, we must remember that only like terms can be subtracted into one term, and that the similar letter portion of these is the same in the answer as in the minuend and the subtrahend.

Subtract:

$$\begin{array}{ll} & -27n^3ax \\ & -13n^3ax \quad \text{(Change sign mentally and add.)} \\ \hline & -14n^3ax \end{array}$$

The n^3ax is simply "brought down" and the −14, the difference between the numerical coefficients, multiplied by this.

Subtraction of Polynomials. When we come to the subtraction of polynomials, we must give some care to our arrangement.

To subtract one polynomial from another:

1. Write the minuend, arranging it according to the descending (or ascending) powers of some one letter running through it.

2. Write the subtrahend underneath the minuend, placing similar terms underneath each other.

3. Change mentally the sign of each term in the subtrahend, and add the result to the minuend.

Example I: From $-10xy^4 + 7x^3y^2 - 5x^2y^3 - 3x^4y + x^5$, subtract $-7x^3y^2 + 4x^2y^3 - 11xy^4 + y^5$.

Arranging, according to the descending powers of x:

Minuend $x^5 - 3x^4y + 7x^3y^2 - 5x^2y^3 - 10xy^4$

Subtrahend $- 7x^3y^2 + 4x^2y^3 - 11xy^4 + y^5$

Remainder $x^5 - 3x^4y + 14x^3y^2 - 9x^2y^3 + xy^4 - y^5$

Notice that when we subtract we do not change the sign of any term in the minuend, even when there is nothing to take from it. But we do change the sign of every term in the subtrahend even when there is nothing to subtract it from. Now add the remainder to the subtrahend.

$x^5 - 3x^4y + 7x^3y^2 - 5x^2y^3 - 10xy^4$.

You see we have our minuend again.

Example II: Subtract the sum of $3x^4 - 8a^3x + 13ax^3$ and $a^2x^2 - 5ax^3 + 6a^3x$ from the sum of $-5x^4 + 9a^3x - a^2x^2$ and $-ax^3 + x^4 + 2a^2x^2$.

First, add the first two given polynomials to make the subtrahend.

Arrange according to the descending powers of a.

$-8a^3x + 13ax^3 + 3x^4$

$+6a^3x + a^2x^2 - 5ax^3$ (Add; no change of signs.)

$-2a^3x + a^2x^2 + 8ax^3 + 3x^4$

Notice that the term a^2x^2 was missing in the minuend, and we left a space for it. Can you see why?

Secondly, add the last two given polynomials to make the minuend.

$9a^3x - a^2x^2 - 5x^4$ (ax^3 term missing.)

$2a^2x^2 - ax^3 + x^4$ (Add; no change of signs.)

Min. $9a^3x + a^2x^2 - ax^3 - 4x^4$

Sub. $-2a^3x + a^2x^2 + 8ax^3 + 3x^4$ (Subtract; change signs mentally; add.)

Rem. $11a^3x - 9ax^3 - 7x^4$

Notice that subtracting a^2x^2 from a^2x^2 leaves 0. The a^2x^2 term disappears.

SYMBOLS OF GROUPING

Parentheses

Parentheses ( ); brackets, [ ]; braces { }; and the vinculum $\overline{\qquad}$ are called symbols of grouping. They all have the same meaning. In fact, at times we call them all by the one name, *parentheses*. They indicate that the terms enclosed within them are to be grouped together, regarded as one in the sense that they are to be *all* added to something, *all* subtracted from something, *all* multiplied by something, perhaps by another expression in parentheses, all used as a dividend or a divisor.*

* Algebraic division, however, more often takes the form of a fraction.

Removing Parentheses

To work out examples containing terms in parentheses preceded by a − or a + sign, it is necessary first to *remove the parentheses.* The rules for removing parentheses are as follows:

To remove parentheses preceded by a − sign:

Rewrite the example, omitting the parentheses and the − sign before them; but change the sign of each term which was within the parentheses, from + to − or from − to +.

To remove parentheses preceded by a + sign:

Rewrite the example, omitting the parentheses and the sign before them; leave the sign of each term which was within the parentheses as it was at first.

After the parentheses are removed, in either case add all the terms as they then stand.

Here is a simple illustration of the removal of parentheses preceded by a − sign:

(1) $10 - 4 + 2 = 8$, according to arithmetic.

(2) But $10 - (4 + 2) = 10 - 4 - 2 = 4$.

It is extremely important that we remember that the − or the + sign before a set of parentheses is not the sign of any letter, any number, or any term. The sign is part of the parentheses, telling us what to do with the terms within, whether to subtract or to add them. When the parentheses are removed this sign is removed also.

$$10 - (4 + 2) = 10 - 4 - 2.$$

When we remove our parentheses from around our $+4$ and our $+2$ we remove also the − sign which has preceded the parentheses. But we remove it because we have used it. We have subtracted the 4 and the 2. That is why when we write our expression the second time the 4 and the 2 are −.

If our parentheses are preceded by a + sign, we are to add the terms grouped within. In addition, there is no change of sign. Take this illustration:

$10 + (-4 + 2) = 10 - 4 + 2 = 8.$

When we write our example the second time the sign before the parentheses is removed with the parentheses. It meant *add*, and we added. Add $-4 + 2$ to 10. The signs of the terms which were in the parentheses remain as they were at first: $10 - 4 + 2$ or 8.

After we have thoroughly mastered the foregoing facts, our work in removing parentheses should be easy, although we have most complicated examples under these rules. If we keep making mistakes when our examples become complicated, it is because we have not thoroughly possessed ourselves of the simple principles on which they rest. Notice the following:

$10m - (4m - 2n) + (-m - 3n)$.

Removing parentheses, $10m - 4m + 2n - m - 3n$.

Adding similar terms, $5m - n$.

Surely we can remove two sets of parentheses in the same example as easily as if we had two separate examples. In adding, we know we could not combine the m terms and the n terms into one term, for they are not similar. So we add all the m terms into the first term of our result, all the n terms into the second.

Here is another illustration, a trifle more difficult:

$5c - (3c + [-12c - \{4c + 1\}])$

Where do we begin? We begin with our *innermost* symbol of grouping, the braces. Remove these with their − sign, changing $4c + 1$ to $-4c - 1$, and leaving all the rest just as it was.

$5c - (3c + [-12c - 4c - 1])$

We continue working *outward,* removing next the brackets with their + sign:

$5c - (3c - 12c - 4c - 1)$

Notice that the $-12c$ did not change its sign. Lastly, we remove the parentheses and the − sign before them:

$5c - 3c + 12c + 4c + 1$ or $18c + 1$.

Inserting Parentheses

In some examples it becomes necessary to put in parentheses, or some of the symbols of grouping. To enclose terms in parentheses preceded by a − sign:

Put in the parentheses and the minus sign in front, an extra sign. Inside write the terms to be enclosed, changing the sign of each. Any terms not to be enclosed in the parentheses remain as they were.

To enclose terms in parentheses preceded by a + sign:

Put in the parentheses and the + sign. Write inside the terms to be enclosed, without changing their signs.

In the following expression enclose the last four terms in parentheses preceded by a − sign:

(1) $x^4 + 3x^3 - 5x^2 + 3x + 7$

(2) $x^4 - (-3x^3 + 5x^2 - 3x - 7)$

Now put a vinculum preceded by a − sign over the last two terms in line 2:

$x^4 - (-3x^3 + 5x^2 - \overline{3x + 7})$

The $3x$ is now +. The − sign belongs to the vinculum. All the terms not put under the vinculum remain as they were.

By removing, first the vinculum, then the parentheses, we can get back our original expression, thus checking our work.

Here is a more difficult illustration:

$2x - \{4x - (7y - 2r) - [2x - \overline{r + 6y} - (-8y + \overline{9y - 3r})]\}$

As our first steps we may remove all at once such symbols of grouping as have no others within them, in this case, the two vincula and the parentheses around $7y - 2r$:

$2x - \{4x - 7y + 2r - [2x - r - 6y - (-8y + 9y - 3r)]\}$

We may next remove the remaining parentheses, now the innermost symbol of grouping:

$2x - \{4x - 7y + 2r - [2x - r - 6y + 8y - 9y + 3r)\}$

Next the brackets, now the innermost. Be sure to change the sign of *every* term within the symbols removed:

$2x - \{4x - 7y + 2r - 2x + r + 6y - 8y + 9y - 3r\}$

Lastly, the braces:

$2x - 4x + 7y - 2r + 2x - r - 6y + 8y - 9y + 3r$

Adding similar terms, we have 0 for the result.

A PLAN FOR TEACHING LANGUAGE

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2. Relation between Thought and Language

II. Influence of the Home

III. Function of the Teacher

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5. The Study of Pictures
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   (a) These should be simple
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   (a) Poems read by the teacher to give pleasure
   (b) Poems read critically by the pupils
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   (a) The teacher should first read the poem to the class
   (b) The value of the oral reading
   (c) The teacher's preparation for conducting the thought analysis
5. The Study of Biography of Poets
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   (a) The Little Jewels
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   (c) The Disappointed Snowflakes
   (d) Farewell to the Farm
   (e) King Solomon and the Ants
   (f) America
   (g) Abou Ben Adhem
   (h) To a Waterfowl

IX. The Study of Pictures

1. Why Pictures Should Be Studied in School
   (a) They can be made the means of developing the æsthetic taste of children
   (b) They help to make instruction objective in character
   (c) They help in developing the creative imagination
2. What Pictures to Select
   (a) Pictures should be characteristic and artistic
   (b) Pictures should appeal to the interests of children
3. Necessary Preparation
   (a) The teacher must know what she intends to teach by means of the picture
4. How Pictures Should Be Studied
5. Illustrative Exercises
   (a) Saved
   (b) The Doctor
   (c) The Young Artist
   (d) The Quiet Stream
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X. Written Composition

1. First Steps
2. Composite Stories
3. Written Reproduction of Short Stories
   (a) The children should have careful preparation before writing
   (b) The written reproduction of stories paves the way for original composition
4. Pupils Should not Be Interfered With When They Write
5. Too Much Stress Should not Be Placed on Penmanship
6. Freedom of Expression Should Be the Keynote
7. Original Composition Work
8. Topical Recitations Related to Composition Work
9. The Use of Outlines
10. Compositions Should Grow Out of Living Speech
11. Compositions Should Be Short
12. Compositions Based on Biography and History
13. Subjects for Original Theme Writing

14. How the Teacher Can Help Pupils in Securing Freedom of Composition
15. Suggestive Topics for Themes
16. Purpose of Composition in the Grammar Grades
    (a) Natural development of language power not to be interfered with
17. Special Aims of the Teacher
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XI. Letter Writing and Telegrams

1. Why Letter Writing Appeals to All Pupils
    (a) The home impresses on children the necessity of learning to write letters
    (b) Letter writing can be made a pleasure
2. Letter Writing a Form of Written Composition
3. Naturalness in Letter Writing
4. How Letter Writing Assists in Original Theme Writing
5. Letter Writing in Primary Grades
6. Use of Model Letters
7. Mechanics of Letter Writing
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XII. Correction of Compositions

1. General Suggestions
    (a) The correction of compositions a delicate task
    (b) Not all compositions should be corrected
2. Directions to Pupils Will Lead to Discovery of Mistakes by Pupils Themselves
3. Purposes of Corrections
    (a) They should assist pupils and reveal shortcomings of teacher's work
4. They Should Be Suggestive in Character
5. Self-Criticism
6. Illustrative Exercises

XIII. Critical Study of Selections as Models of Style

1. Purpose
    (a) Pupils to be made conscious of beauty, strength and clearness of sentences
2. Results
3. Illustrative Exercise

IMPORTANCE OF TEACHING ENGLISH

Our Cosmopolitan Population. The power of expressing thought clearly, concisely, and cogently should constitute an important part of every child's education. Granted a home environment in which the child heard only pure and correct English, he would learn his mother tongue naturally and easily, like play. But in a cosmopolitan population like that of the United States, the language of the home often is not English, but German, Italian, Polish or any one of many languages, and English is practically a foreign tongue to be learned at school and on the street. This condition emphasizes the necessity of special attention being devoted to the teaching of English, and thus instruction in this subject becomes one of the most important functions of the elementary school.

Relation Between Thought and Language. But aside from this special reason, the teaching of English is important because of the close interaction between thought and language, and because of the close connection between language and general culture. This is the most important reason for giving English a prominent position in the course of study from the first grade in the elementary school to the university.

Instruction in English should be both general and special. Every subject taught has its language features, and it is the province of the teacher to cultivate on the part of the child a desire to express himself at all times in as clear and correct English as lies in his power. To do this most effectively, the school, in its early teachings, must imitate the home.

INFLUENCE OF THE HOME

What an astonishing command of language every little child possesses upon entering school! True, the little German boy may appear mute upon his first introduction to school, but try him in his native tongue. You will find him able to use it with as great a facility and ease as the child who has been brought up in an English-speaking home uses his mother tongue.

What special method does the home use in developing this wonderful power of expression? It makes use of the simplest but most effective method. The child learns language by listening to his mother, father, brothers and sisters. He is encouraged to express his thoughts and feelings by all who come into contact with him. His every effort is applauded; a feeling of conscious power to express his thoughts soon becomes his and he enjoys his new accomplishment to his heart's content. The work in language in the school differs from that of the home in that the school teaches not only the language of conversation but the language of literature.

FUNCTION OF THE TEACHER

There should be no break between the home and the school. The school should endeavor to furnish conditions similar to those of the home of culture and refinement, and thus make possible a continuation of the method of the home in the teaching of English. In the school, the teacher takes the place of the parent. It is her voice which the children hear more than that of anyone else. This demands that the teacher's language be rich and pure and her enunciation clear and forceful, to the end that her language may be a proper model for her pupils.

Like the mother, she must possess infinite patience and tact in encouraging and assisting children to express their thoughts in a logical, pleasant, clear and convincing way. Like the mother, she must realize that ideas spring up in the child's mind as water bubbles up in a spring. She may guide the flow, but she must avoid stemming it by excessive though well-meant criticism.

GENERAL OUTLINE OF WORK

In the following pages an attempt is made to outline in a general way a course of study for the elementary school and to suggest methods of instruction. The broad lines of work may be stated as follows:

1. Observation language lessons.
2. Story telling.
3. Dramatization.
4. The study of poetry.
5. The study of pictures.
6. Written composition.
7. Letter writing and telegrams.
8. Correction of compositions.
9. Critical study of selections as models of style.

OBSERVATION LANGUAGE LESSONS

Children as Observers. The senses of children are ever active in storing their minds with a great amount of knowledge gained at first hand and not through books. But little children as a rule do not observe closely. Their eyes flit from object to object hastily, with the result that much of the knowledge gained is superficial and vague.

It is the function of the home so to direct the children that they may form habits of studying things closely and carefully, for upon the development of right habits of observation depends the development of all intellectual life. Many interesting subjects will be found in THE HOME AND SCHOOL REFERENCE WORK which will be suggestive to parents in directing the observational power of their children both before they enter school and while attending school.

Transition from Home to School. The wise teacher will use the knowledge which the children have gained while at home and make it the natural means of transition from the education of the home to that of the school. She will engage the little people in conversation and urge them to talk freely about the

things at home, their household pets. the birds, flowers and trees, and anything which has come within the range of their observation.

Purposes. The teacher should, however, do more than have the children tell about what they have seen and heard. Things should be brought into the schoolroom which are to be studied under the guidance of the teacher. To do this work effectively the teacher must have in mind the purposes of observation language lessons. These may be summed up as follows:

1. To cultivate the senses.
2. To clarify and organize the body of knowledge the pupils acquire outside of school and to extend and enlarge this knowledge.
3. To cultivate a love for nature.
4. To cultivate language and thought power.

Selection of Materials. There is a wealth of material the teacher can choose from, for these exercises. Naturally the material selected in a city will differ from that selected in a village or in the country. Each season of the year, also, both in the city and country, will have its special offering. Two tests, however, should always be applied in selecting material: Is it interesting to the pupils and has it cultural value? Pictures may also be used, but while they may serve a good purpose it must be remembered that the most interesting picture book is nature herself.

The Desire to Collect Things. The desire to collect things is inherent in all children. This habit should be carefully cultivated by parents and teachers. Every child and every schoolroom should have a collection of interesting things that nature furnishes for nothing, requiring only that we look for that which she has to offer.

Method of Presentation. In presenting an object for study, the teacher should so place it that the entire class can see it. Then she should encourage pupils to tell what they know about it. The success of the exercise depends upon the teacher. If she is interested in the matter presented and by skillful questions gets the children to make observations and to tell what they have seen or learned, they will respond with the same enthusiasm as that manifested by the teacher.

When the pupils have spent some time studying an object and telling what they have observed, it is a good plan to have them summarize what was learned. In the first few grades the teacher naturally must come to the pupils' assistance in securing these summaries.

The teacher who is skillful in drawing has a great advantage in this work. Sketching an object or a part of it on the board will help in emphasizing it and fixing it in the memory. Children, also, should be led to make sketches, crude though they may be. The very fact that they are to make an attempt at sketching causes them to observe more closely. In the first and second grades the first efforts might be limited to copying sketches made by the teacher.

Influence on Language. The observational exercises should be as conversational in character as possible. Pupils should be encouraged to speak freely and, as a rule, in full sentences. Children enjoy talking about real things and thus these exercises will help in cultivating the power of expression. Beginning with the second or third grade, pupils may base simple written compositions on the observation work.

How the Fact Side May Be Relieved. Finally it must be remembered that while the general purpose of these observation language lessons is to enlarge the body of knowledge of things appealing to the senses, the work in school should be so conducted that the pupils will have an increased interest and love for the things in nature and in art. For this reason, especially in the first few years, the fact

side should be relieved by introducing in each exercise a suitable story, poem or song.

Illustrative Exercise — The Robin. The teacher should secure from the school museum a mounted specimen of a robin. If such a specimen cannot be had, the picture of a robin will suffice.

There is no set way to conduct this exercise. The teacher may begin by calling attention to the size, shape and color of the robin, or she may begin by having the children tell what they know about the robin. Probably the latter course is preferable. With a little encouragement on the part of the teacher the children will talk freely about what they have seen the robin do, about its nest and the little baby robins.

After this preliminary work the teacher may ask suggestive questions which pupils may answer or which she may answer herself.

Method of Procedure. It is spring. Snow and ice have disappeared and the robins have come again. Where were the robins in winter? Why did they not stay with us? Here the teacher may find it necessary to tell the children that in the fall of the year the robins fly to warmer regions and return to us in the spring. For this reason the robin is called a bird of passage.

Let us examine the pretty robin more closely. What is the color of its head? What is the color of the upper part of the robin? The tail? What is the color of the throat? What is the color of the breast? What is the color of the wings?

What does the robin do during the day? How do the robins build their nest? Where do they build it? What do the robins eat? The robin is a useful bird because he lives mostly on harmful insects and we ought not to begrudge him a few cherries as dessert. Have you ever seen a robin protect the nest? What do you like best about the robin?

Have you ever seen robins feed their little ones? Sometimes the father and the mother robin are out searching for food at the same time. Then the baby robins usually lie sleeping with their heads hanging over the side of the nest. But as soon as the limb moves ever so little, every baby robin's head is up and its mouth wide open ready for the food. Do you know how often a baby robin is fed? Every 15 minutes is dinner time for the baby robins, and every day each little robin eats at least two times its own weight in worms. No wonder the little ones grow rapidly.

Have you ever seen the father and mother robin teach the little robins how to fly? It may be necessary for the teacher to tell how the bird parents tempt the fledglings to leave the nest by holding worms just out of their reach. How the little ones in trying to get the food fall fluttering from the nest; how the parents then teach their little ones their first steps in hopping and running; and how later they teach them to fly.

This more or less informal study of the robin should be followed by a study of a pretty selection, so that the pupils may be led to see the robin with the poet's eye.

Sir Robin

Rollicking Robin is here again,
What does he care for the April rain?
Care for it? Glad of it! Doesn't he
know
That the April rain carries off the snow,
And coaxes the leaves to shadow his nest,
And washes his pretty red Easter vest,
And makes the juice of the cherry sweet,
For his hungry little robins to eat?

—*Lucy Larcom.*

The teacher should write the above stanza on the board. Just what purpose the stanza is to serve will depend on the grade in which it is used. If it is used in a first grade the teacher should read it to the children in such a way that they may catch the spirit that actuates the robin in coming so early to his Northern home. Naturally in a second or third grade the children will read the stanza themselves.

However, whether the stanza is read

by the teacher or pupils there should be joined to it a thought analysis which may be suggested by the following questions and discussion:

The first line tells us that the robin has come back. What question does the second line ask? What in the third line tells us what the robin thinks of the April rain? Is the April rain usually cold or warm? Does the robin care? Is some of the winter's snow on the ground in April? What does the April rain do to the snow? Does the sun help? How does the April rain coax the leaves out? What does "to shadow his nest" mean? What is meant by "red Easter vest"? Why does the poet call it an Easter vest? Do you like the name robin red breast? What else does the April rain do? Do the hungry little robins eat many cherries? What do they mostly eat?

After the discussion on the stanza the teacher should help the children to commit it to memory.

Illustrative Exercise—Germination. Simple lessons on the germination of plants may be begun in the first grade. Some time in the early part of April the teacher should plant seeds of the bean, morning-glory and corn in boxes filled with sand, carefully marking each row. The sand must be kept moist and warm so that the seeds will sprout within a short time. After a few days specimens of the beans may be taken out and compared with the dry seeds. After a few days another row of seeds may be taken up and the changes noted. In this way the pupils may be led to observe and describe the seeds while germination is in progress. Naturally these lessons will be given from time to time in the course of a month or two.

A few seeds should be planted and not watered; a few should be planted and watered but kept in a dark place; some should be kept in a cool place. In this way pupils may be led to discover that growing seeds need moisture, warmth, air and sunshine.

The teacher should guard against attempting to do too much on the fact side with the little children in this grade. By means of these lessons children may be led to watch the awakening life in seeds and observe the development of roots, stems, leaves and flowers.

At an appropriate time after these lessons are begun the teacher should soak many beans in water for a day or two and then have the children remove the skin and find the little plantlet hidden between the two thick seed leaves.

To give the poetic touch to these lessons the teacher may write the following poem on the board and base a conversational exercise on it.

The Seed

In the heart of a seed
Buried deep, so deep,
A dear little plant
Lay fast asleep.

"Wake!" said the sunshine,
"And creep to the light!"
"Wake!" said the voice
Of the raindrop bright.

The little plant heard
And it rose to see
What the wonderful
Outside world might be.

—*Kate L. Brown.*

What does the first stanza tell us? Why may we say the plant lay fast asleep in the heart of the seed? What did the sunshine say to the seed? How do you know that sunshine is necessary to have plants grow? What did the raindrop say to the seed? Is water necessary to have the plant grow? Let us recite together the last stanza.

After this study of the poem the children will watch the development of the seeds with increased interest. The teacher might also distribute various seeds among the children and ask them to request their mothers to plant them at home. The children will naturally enjoy helping their mothers in caring for the seeds and will be anxious to report changes in the appearance of the plants from time to time. Then, also, with the

assistance of the mother, the life history of a plant from seed to seed may be studied, and thus, also, the interest of the mother in the education of her children may be kept up.

STORY TELLING

Fairy Tales, Folk-Lore Stories, Myths and Fables. These stories naturally stand foremost in furnishing intellectual food for children. They interest children and have a classic value when maturity is reached. They have been the property of the human race for centuries and have been purified by succeeding generations. They are simple and childlike, and furnish wide opportunities for the exercise of the imagination because they contain no names of particular persons, and happenings are controlled by neither time nor place. They appeal to the individuality of children and serve as a basis for ethical truths and judgments which can be made to react on character. If the selection made is a judicious and a pedagogical one, fairy tales and folk-lore stories will constitute a rich fund of material that will appeal to the feelings and poetic sense of the children. Children whose minds are saturated with these stories remain children longer, and thus we guard against their becoming blasé. These stories should constitute the basis for most of the language work in the first two years.

Stories From History. These stories, while taken from history, should not be biographical in character. They should be selected to depict some trait of an historical personage, like honesty, perseverance, heroism, and truth; for ideal conduct and character as revealed in stories, exercise a great influence for good on the daily life of children.

Narratives of Grotesque Personages. These stories appeal to children because of their picturesqueness, sentiment and truths contained in them. Such are the stories of the East, of which the most notable are the stories from the *Arabian Nights.*

Humorous Stories. Children delight in the humorous, comical, laugh-producing stories. In stories like *The Peterkins,* no foolish person is too foolish for children because opportunity is offered them to compare their superior wisdom with that of the stupid character depicted in the story. It gives them a chance to be proud of their own astuteness and knowledge.

Biographical Stories. These stories should be taken both from the field of general history and American history. There is, however, such a wealth of biographical stories that the temptation to include too many such stories is a constant menace to thoroughness. It is best to select only a few characters, and let these be of the commanding type, such as illustrate by their aspirations and deeds the ideals of the age in which these makers of history lived.

Importance of Story Telling. Twenty years ago G. Stanley Hall declared that story telling was a lost art. If this was a true statement at the time it was made, it is so no longer. For years teachers have recognized the importance of story telling as an early phase of language work. They have come to realize that the mother's method of teaching language in the home should be followed in school. If teachers have not become adepts in the art of story telling it is because little effort was made in that direction while they were being trained for teaching. But any teacher can become an accomplished story teller with practice. Furthermore, it is of great importance to acquire the art of story telling, because oral presentation plays so important a part in teaching.

Teacher's Preparation. Before attempting to tell a story it is necessary to make careful preparation. This consists first of all in knowing the story. By knowing the story is not meant simply

the ability to tell the words, but to appreciate thoroughly the art side, for every good story is a piece of art. It is necessary to feel it, to live it. Then only can it be told in a way to make it realistic. The teacher must have a clear conception of every picture contained in the story before she can hope to tell it in so enticing a way as to compel attention. It may even be necessary for the teacher to commit the story to memory and then tell it to herself aloud to secure confidence in herself as a final step in the preparation.

How Stories Should Be Told. When she knows the story so well that she is conscious of freedom, spontaneity and power to abandon herself to the dramatic element in response to the ever-changing moods of little children, she is prepared to tell it to the class, and not before. But while a little of the dramatic element may safely be introduced, naturalness and directness should never be sacrificed. There may be manifested much enthusiasm, but no affectation; much art in captivating and holding the attention of the little ones, but no attempt at a display of elocution or histrionic ability. Teachers should, however, enhance the effect on pupils by cultivating a rich, clear, melodious voice, distinct articulation and enunciation, and absolute accuracy of speech.

Many stories should be told with no expectation of retelling on the part of the pupils. Children's minds may be surcharged with the stories that occupy the lowest rounds of the classical ladder and much good will result, but a selected few should be worked over carefully in class to cultivate the critical reflective attitude of pupils. Unless that is done the benefit accruing will lack in directness and in positiveness.

It is best, perhaps, to tell a story in its entirety before engaging pupils in conversation relating to it. The questions should be such as will help in clarifying thought and in reaching the spiritual element in the story. This takes time and skill, and, above all, requires perfect sympathy between pupils and teacher, to the end that the children will be free to tell their inmost thoughts. After a story has been worked over in this way it should be retold in its entirety by the pupils, but in this formal reproduction too much emphasis should not be placed on exactness of reproduction. The effort of the teacher should be to create vivid pictures in the minds of the children, so that when they are called on to tell the story they will describe their mental pictures rather than simply give the words of the story.

Do not Interfere. When a child retells a story he should be let alone, and not be harassed by questions or directions. He should be allowed to tell it in his own way, after his own fashion. He should be permitted to introduce faulty expressions and childlike sentence structure. He should be encouraged to use expressions he has discovered himself and make changes in the story suggested by his imagination. His tongue is to be loosened. His thoughts are to flow freely and unreservedly, without check or hindrance. One day each week might with advantage be set aside for review story telling, in which children should be permitted to select from the entire list of stories their favorite ones and tell them to the class. They should also be encouraged to tell stories not worked over in class, but which they may have read or heard at home.

Appealing to the Creative Imagination. Telling a story for reproduction is the method usually followed. Its success depends largely on the power of the reproductive imagination. A child with a good ear and fair understanding will experience little trouble in reproducing stories adapted to his stage of development. But if we have in mind at all times the main purpose of intellectual education, namely, developing the thought power, we must do more than to get the pupils correctly to reflect the thought of others. Not only must the reproductive imagination be cultivated, but also the creative. C. Lloyd Morgan truly says:

"Children are often highly imaginative; and nothing is commoner than for the unimaginative teacher to ruthlessly snub down the imagination of the child —which is, indeed, a delightfully simple operation, requiring neither experience nor tact. No doubt the imagination is often wild and wayward; but our duty is to train it, not to crush it. And, unfortunately, the former is a far more difficult thing to do than the latter. Snubbing is so easy; the helpful guidance of the imagination so difficult."

There is another form of story telling which has for its purpose the furnishing of opportunity for the exercise of self-activity in constructing the story the teacher has in mind. According to this method the teacher should first of all state to the pupils what may be termed the introductory synopsis of the story. This serves as a circle of limitation to the flights of the creative imagination of the children.

Having stated briefly what the story is about, the teacher should begin to tell it in detail, and, stopping at a suggestive point, ask a pupil to continue the part told. With a little ingenuity and carefully planned questions pupils can easily be led to build up a story based upon the part told by the teacher. Of course, they will not construct the story exactly as the teacher has in mind, nor is that intended. The pupils are to tell a part of the story as suggested by the part told by the teacher, and in doing so they are exercising their creative imagination, which is the principal purpose the teacher has in mind. After several pupils have been given an opportunity to construct a part of the story, the teacher should take it up where she left off, tell another part, and, again stopping at a suggestive point, ask the pupils to continue the story, and so on until the entire story is worked out.

As may easily be inferred, this method is on a much higher plane than the other. Hence it demands perfect mastery of the story and skillful management of pupils in bringing them back from their imaginative wanderings into the imposed circle of limitation. But the extra burden it entails is more than compensated for by the eagerness and the interest displayed in thinking out scenes and situations never thought out before. After all, it is self-activity, not passivity of mind, that we should strive to cultivate.

SELECTED STORIES AND HOW TO TELL THEM

The Eye of God

A brother and sister were alone at home. The brother said to the sister, "Mother is gone, let us look for something good to eat and enjoy ourselves." With a roguish twinkle in her eye, the sister replied, "If no one sees it, I am willing to do so."

"Then come with me to the kitchen," said the boy. "There, I know, we can find some cake which we can eat." But his sister said, "No, our neighbor is at work near the window and he will see us." "Then come with me into the pantry," said the boy. "There, I know, mother keeps her honey jar." But his sister said, "No, the neighbor's wife is sitting at her window sewing, and she will see us." "Well, then, come with me into the cellar," said the brother. "There we can eat apples, and no one can see us because it is pitch dark." But his sister replied, "No, there God will see us, for He sees everything, even in the dark." Then the boy became frightened and said, "Then we had better not eat anything at all."

In learning to tell this story, the teacher will find it easier if she pictures the successive scenes suggested by the story. The children are probably in the sitting room when the brother proposes to have a good time during the absence of the parents. The first suggestion of the brother takes us to the kitchen, the second takes us to the pantry and the third to the cellar.

The teacher will discover that when pupils reproduce the story they are apt not to use the direct quotations and thereby lose much of the charm of the

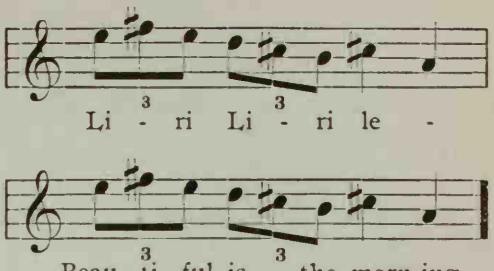
story. The teacher should, therefore, urge the children to tell the story just as she told it. It may even be necessary to assist the children by asking them such questions as, What did the sister say? What did the brother say?

After two or three of the best pupils have reproduced the story the teacher should ask a few questions to bring out the meaning of certain parts. The teacher well knows that the little girl, from the beginning, did not intend to join her brother in the escapade. We know that she acted the part of his guardian angel and that she knew all along that her brother could not name a place where no one could see them. Did the sister enter into the plan suggested by the brother? is a question that will elicit various answers. The key to the entire ethical situation lies in the phrase, "with a roguish twinkle in her eye."

The moral of the story is quite evident and hence should not be made too prominent by the teacher. The story depicts temptations that come to all children many times, and while it is well to bring out the idea that they should withstand temptations, there must always be the reservation that even if the children had yielded no great wrong could have been committed, for, after all, the children were in their own home, and the cake and honey really were intended for them. There is always danger in making the moral element too burdensome and thus cause it to lose in force and effectiveness. We must remember that the boy was actuated more by his love of fun than by the baser motive which we are sometimes too ready to ascribe to actions of this kind. The prettiest part of the story is the delicate but effective way in which the sister proceeded in bringing her brother to the realization that what he proposed to do was wrong.

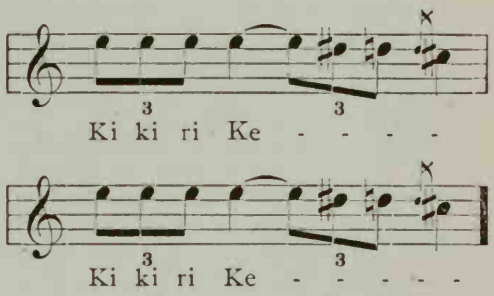
The Beautiful Rays

The sun was just rising above the horizon and beginning to send out his beautiful rays to wake the sleepers in the whole land. A ray touched a lark, and, darting out of its nest, it flew high up in the air and sang,



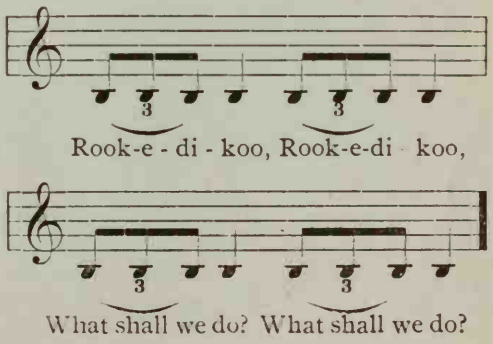
Another ray woke a little hare, which, without rubbing its eyes, ran out of the forest into the meadow to look for tender grass and juicy herbs for its breakfast.

A third ray reached the chicken coop, and immediately the cock called out,



and the hens flew from their perches to look for food in the yard and to lay eggs in the nests.

A fourth ray struck the dove cote, and the doves called out,



for the door was still shut. But when it was opened they all flew to a distant field to pick up the grain which was left by the reapers.

A fifth ray came to a little bee. The bee crept out of the hive, cleaned its wings and buzzed around the flowers and the blossoming trees collecting honey, which it carried home.

Then came the last ray, which touched the bed of the lazy man and tried to wake him, but he did not get up; he simply turned over and continued to sleep while the others worked.

This is a story that will appeal particularly to children who have enjoyed taking care of rabbits, chickens or pigeons. It introduces children to the animal world with which they are most familiar and in which they are most interested. The story is quite difficult to tell because it demands that the teacher imitate the song of the lark, the crowing of the cock and the peculiar call of the dove. The teacher will appreciate that the expressions used in the story can only be suggestive of the real calls.

To help the teacher in imitating the lark, the cock and the dove, their calls have been set to music and embodied in the story. It will be found that the music is so simple that the average person will have no trouble in singing it easily. Those who do experience trouble in reading the music might have the airs played for them. It will be found that one or two hearings will be sufficient to fix the tones. The little "motif," it is hoped, will give color to the story.

The Crocodile, the Tiger, and the Traveler

On a narrow road between a steep hill on one side and the River Ganges on the other, a traveler was walking alone. Suddenly, from the top of the hill, a ferocious tiger came bounding toward him. The traveler was just about to jump into the Ganges to save himself by swimming, when from its waters emerged a large crocodile.

"I am lost," the traveler cried, and sank on his knees. At that moment the tiger leaped at him and landed in the jaws of the crocodile.

This story is a favorite one with children. As is always the case, they visualize the various details. It would be well to let them sketch on paper or blackboard some scene that they think represents the story. Such sketches will be crude, but they are another form of expression and afford a valuable drill.

USE OF STORIES IN APPEALING TO THE CREATIVE IMAGINATION

There are various ways in which children may be led to construct parts of a story the teacher has in mind. The teacher may begin by stating the introductory synopsis:

This story is about a little girl who was lost to her mother. She finally reached the home of some good people with whom she lived for several years.

Then she should begin to tell the story. Perhaps the first stopping point should be after the sentence, "One day she took her little girl with her." It will be observed that several questions are introduced after each such closing of a part told by the teacher. This might be construed to mean that the only function of the teacher is to ask those questions. It should be borne in mind, however, that the questions are suggestive only, that others may be suggested by the part of the story told by the children, and that the chief function of the teacher is to encourage self-activity on the part of the children. There must be perfect freedom in the exercise of the creative imagination when once the children begin to tell parts of the story. It will be found that they often build up an entirely new story, thus giving proof of the effectiveness of the teacher's work. Care should then be exercised in not hurting their feelings when it becomes necessary to bring the class back to the

circle of limitation as imposed by the introductory synopsis, so that the teacher may continue the story from the point where she left off. While the entire story upon which this exercise is based has not been introduced, it will be found that the parts used will make it easy for the teacher to secure the hearty cooperation of the pupils. The successful presentation of stories according to this method depends so much on the skill, enthusiasm and ability of the teacher that she should make special preparation before attempting to use a story as a basis for having children exercise their creative imagination.

Birdie

Once upon a time there lived in a village a poor widow and her little baby girl, two years old. During the summer the poor woman often went into the neighboring forest to pick up wood for the winter. One day she took her little girl with her.

How did the little girl help her mother?

What did the mother do one day, do you suppose, when the little girl got tired?

The mother was tired, also. While she was sitting under the tree with her little girl in her lap she also fell asleep. While the mother and child were sleeping a great eagle was flying overhead.

Tell what happened to the little girl.

How did the mother feel when she woke up?

What did she do?

How long did she look for the child?

Why did she run to the village to give the alarm?

Did the villagers find the child?

Was the mother finally forced to give up the child for lost?

Why were the villagers kind to the poor woman?

The eagle's nest was in a tall pine tree many miles away. It happened that a hunter passed by the tree just when the eagle placed the child in its nest. The hunter heard the cries of the child.

Tell how he rescued the child and to what place he carried it.

The hunter had a little daughter called Lena.

When she opened the door for her father and saw the child, what do you suppose she asked her father?

The hunter named the child "Birdie."

Why?

Tell the story the hunter told Lena.

Why did Lena like the idea of having little Birdie for a sister?

Lena and Birdie became good friends. They were always together. When the hunter came from the forest with berries, Lena was always anxious to have Birdie get her just share.

In what other way, do you suppose, did Lena try to please Birdie?

How did the children amuse themselves?

Did Birdie ever speak of her mother?

What did Lena do then?

Birdie stayed in the hunter's home until she was seven years old.

Whenever the hunter visited surrounding villages he told the story of the finding of little Birdie. One time he visited a village many miles from his home. It was the village where Birdie's mother lived.

Tell the story that the hunter told one of the men of the village.

What did the man tell the hunter?

Where did the men go then?

Tell the story the hunter told the poor woman.

What did Birdie's mother decide to do?

Did they start on their journey immediately? Did some of the villagers go along?

Other Exercises. Imagine yourself to be Birdie and tell the story she told her mother about her life in the hunter's home. Use the pronoun *I*.

Tell the whole story, using the following outline:

1. A poor woman goes to the forest to pick up wood.

2. Her little baby girl is carried far away by an eagle.

3. A hunter rescues the little girl and takes her to his home.
4. Birdie is restored to her mother.

The Bremen Town Musicians

A man had a donkey who had carried sacks to the mill for his master for many years. But the donkey at last grew old and feeble. Then the master said:

"I cannot afford to feed an old donkey that can no longer work for me. I will drive him out of my barn and let him go where he pleases."

The poor donkey felt sad to think that his master should turn him out to die without even thanking him for the work he had done. But he did not despair. He made up his mind to go to Bremen to be a town musician.

After he had gone a short distance he saw a dog by the roadside howling piteously.

"Why do you howl so loud?" asked the donkey.

"Oh," said the dog, "because I am old and am getting weaker each day, and can no longer hunt for my master, he wanted to kill me, but I ran away, and here I am. How I am to get food for myself, I do not know."

"I'll tell you what," said the donkey, "you come with me. I am going to Bremen to become a town musician. You can also play in the band."

"All right," said the dog. So they walked on together.

Within a short time they saw a cat sitting by the road. She looked sad and forlorn.

"What is the matter with you, friend cat?" asked the donkey.

The cat replied, "Who can be happy with so bad a mistress? Because I am getting old and my teeth are dull and I prefer to sit behind the stove instead of trying to catch mice, my mistress wanted to drown me, but I escaped, and now I do not know what to do."

The donkey said, "Come with us to Bremen. You know how to make music at night. You can be a town musician." So the cat went along with the donkey and the dog.

After walking for some time they came to a farmyard. On the gate post they saw a rooster and he was crowing with all his might.

The donkey said, "Why do you crow so loud?"

The rooster answered, "I just overheard my mistress tell the cook to cut off my head tonight. The cook is to make me into soup tomorrow and so I have made up my mind to crow until I die."

The donkey said, "Come with us to Bremen. That will be better than dying. You have a powerful voice, and if we all sing together people will take notice of us." The rooster thought it was a good idea and the four walked away together.

But they could not get to Bremen in one day. Toward evening they came to a forest. Here they decided to stay for the night. The donkey and the dog lay down under a large tree. The cat climbed up into the branches and the rooster flew to the very top of the tree. There he thought he would be safest. Soon he saw a light in the distance. He called to his friends, "I see a light, and where there is a light there must be a house."

The donkey said, "Let us go there. Our bed is not comfortable here." The dog said, "I am willing. Perhaps I can find a few bones with a little meat on them." So they all walked toward the light. The light became brighter and soon they stood before a house. The donkey went up to the window and looked in.

"What do you see?" whispered the dog.

"I see a table in a large room and on the table are good things to eat and drink. It is a robbers' house and the robbers are sitting around the table and are enjoying themselves," whispered the donkey.

"I wish I had some of the bread," said the rooster.

"I wish I had some of the milk," said the cat.

"I wish I had some of the meat," said the dog.

"I wish I had some of the wine," said the donkey.

Then the animals planned to frighten away the robbers. The donkey placed his forelegs on the window sill. The dog jumped on the donkey's back. The cat climbed on the dog's back. The rooster flew up and perched on the cat's head. Then they all began to make music. The donkey brayed. The dog barked. The cat mewed. The rooster crowed. Suddenly they fell through the window into the room, breaking the glass as they fell. When the robbers heard that dreadful noise they became frightened, jumped up from the table and ran into the woods. Then the four companions sat down at the table and ate as though they had to fast for a month thereafter.

When the friends had feasted to their hearts' content they put out the fire and looked for a place in which to sleep, each according to his nature. The donkey lay down in the yard, the dog lay down behind the door. The cat curled up near the warm ashes on the hearth. The rooster flew up on the roof. They were all tired out on account of their long journey and were soon fast asleep.

But the robbers had been watching the house from afar. When they saw that no light was burning and every thing appeared quiet, the captain said, "We were fools to be frightened so easily." Then he ordered one of the robbers to go to the house to find out who was there.

When the messenger reached the house he stealthily went into the kitchen. He took out a match, and, seeing the fiery eyes of the cat, he thought they were coals of fire. He tried to light his match by touching it to one of the "coals of fire." But the cat flew at his face spitting and scratching. This frightened the robber and he ran for the door. Just as he was passing out the dog bit him in the leg and when he reached the yard the donkey kicked him. The rooster heard the noise and crowed with all his might, "Ki ke ri ki, Ki ke ri ke."

Then the robber ran back to his companions as fast as he could. He was terribly frightened. "O captain!" he called out, "in the house is a terrible old witch. She breathed on me and scratched my face with her long sharp nails. Behind the door stands a giant with a long, sharp dagger. He stabbed me in the leg. In the yard is a great monster who beat me with a big club. And up on the roof sits the judge. He kept calling out, 'Bring me the villain! Bring me the villain!' "

When the robbers heard this they were terribly frightened. They did not dare go near the house again but they went far into the forest to build another house.

The four Bremen town musicians liked it so well in their new home that they stayed there.

First Presentation. In telling the story the teacher should have in mind the three parts into which it naturally divides itself, namely:

1. How the four musicians came to be associated with each other.
2. How they captured the robbers' house by means of their music.
3. How they established themselves in their new home.

This story is well adapted for first-grade pupils but may also be used in a second or third grade. It may seem to some teachers that the vocabulary of the story is too difficult for the pupils of the first grade. If the teacher who is to use the story in a first grade is of that opinion, and she ought to be the best judge, she can readily simplify it by breaking up the longer sentences into shorter sentences, by using shorter words and by repetition of parts told. But, as a rule, it will be found that a more difficult and extensive vocabulary can be used by the teacher in telling stories to children than can be used in stories which children are to read themselves.

The story lends itself to a form of treatment in which the teacher encourages the pupils to anticipate some of the things said or done by the actors. When, for example, the teacher reaches the point in the story where she says, "Then the master said," she should stop and allow pupils to tell what he may

have said. There are many points in the story where the teacher can stop to ask the questions, What did he say? What did the dog do? The cat? The donkey? The rooster? What happened then? Many other questions will suggest themselves to the teacher while telling the story. The teacher's aim will be to have pupils construct as much of the story as possible.

After the first part of the story, How the four musicians came to be associated with each other, has been told in the above way, some pupil may be asked to tell this part in a connected way. This would naturally not be a perfect reproduction nor is that intended. The effort of the teacher should be to make children self-active. If changes are introduced they should be welcomed, not discouraged.

In a similar way each of the other units should be worked out.

Second Presentation. In the second presentation of the story questions should be asked to bring out the facts of the story, and others that will cause the children to reflect on the facts, thus: Tell me how the donkey came to leave his master. Do you like the donkey's master? Why not? What did the donkey intend to do? Do you think he would have made a good musician? Why do you like the donkey? Where did the donkey go and whom did he meet? What did the donkey say to the dog and what did the dog answer him?

What did the donkey and dog do then? What did the cat say to the donkey? Why did the rooster crow so loud? Should persons keep such animals after they are old?

Why could the friends not get to Bremen in a day? How did they intend to spend the night? What did the rooster see from his perch? Tell what the animals did to get the robbers out of the house. Could they have accomplished what they did if they had not worked together, but each one for himself? Do you know what is meant by "In union there is strength"? Tell what happened to the robber that came back. Tell the story he told his captain. Did the robber believe what he was saying? Do you think the four companions did right in taking the home away from the robbers? Why?

The children are now ready to tell the whole story, but again it is urged that pupils should not be held strictly to the facts as presented in the story. They should be encouraged to allow their imagination to have free scope.

The Shoemaker and the Elves

The teacher should first of all give a brief summary of the story somewhat as follows:

I shall tell you a story about an honest shoemaker who tried hard to get along in the world, but luck seemed to be against him. He became very poor, but he did not despair. Help finally came from a most unexpected quarter, and the shoemaker never again was in want. This general summary is given so that the teacher may be in a position to check random talking by pupils by referring to the limitations in the summary.

The story should be divided into units, and each unit should be developed somewhat as follows:

First Unit. *Teacher.* I shall tell you today how the shoemaker cut out the last pair of shoes in the evening, and what he discovered the next morning that made him happy.

The shoemaker worked very hard and still he did not earn enough to live on. How do you suppose that happened?

Possible Answers. Perhaps he owed somebody money, and so he had to pay out the money when he sold shoes. Perhaps his children were sick and he had to pay the doctor. Perhaps the shoemaker was sick a long time and hence could earn no money.

T. I do not know what made him poor, perhaps you are right. At last all he had in the world was gone except just leather enough to make one pair

of shoes. He cut these out at night and meant to rise early in the morning to make them up. His heart was light amid all his troubles for his conscience was clear. So he went quietly to bed, left all his cares to God, and fell asleep. Why was his conscience clear?

P. A. He was a good man and always did right. Although he was poor he was not to blame for it. He was willing to work.

T. In the morning after he had said his prayers he sat down to work, but there was no work for him to do. What had happened during the night?

P. A. Perhaps somebody stole the leather.

T. Would that make him happy? You remember I said something happened that made him happy.

P. A. Perhaps somebody brought him much leather as a present. Perhaps a friend made the shoes for him at night.

T. Yes, that is what happened. When he looked at his workbench there stood the shoes already made. Every stitch was perfect. Soon a customer came in. Did he buy? Why?

P. A. The shoes were so fine.

T. What did the shoemaker do with the money?

P. A. He bought food. Perhaps he bought more leather.

T. That is what he did. He bought leather enough to make two pairs of shoes. This was in the evening. What did he do then?

P. A. He cut out the leather and went to bed.

T. What did the shoemaker think might happen again?

P. A. That somebody would come and make the shoes.

T. Tell me what happened.

P. A. The shoemaker was anxious to find out whether the shoes were made, so he got up early the next morning and went into his workroom. On the table stood two pairs of shoes, beautifully made.

T. What did the shoemaker do then?

P. A. He picked them up and looked at them. He was glad that the shoes were made. He put them in the window so that people could see what fine shoes he had to sell. Soon a customer came in and bought a pair. Before evening he sold the other pair also.

T. What did he do then?

P. A. He then bought more leather.

T. Yes, he had money enough to buy leather for many pairs of shoes. He cut out the work again in the evening and when he got up the next morning he found it finished. And so it went on for some time until the good man was quite well to do.

When the above unit is developed in this way the teacher should ask some pupil to tell the story up to this point.

Second Unit. *T.* Was the shoemaker not curious to find out who it was that did his work? What did he do to find out?

P. A. The shoemaker and his wife made up their minds to watch one night. They hid behind the door and peeped through the crack. When everything was quiet the window opened and in came a fairy. She touched the leather with her wand and immediately the shoes were ready. Then she left. Then the shoemaker and his wife ran into the room and examined all the shoes.

T. That was well told. But it was not a fairy the shoemaker and his wife saw. Instead of a fairy there were two little elves. The elves worked busily, stitching, rapping and tapping, and long before daylight they left again. The shoemaker's wife noticed that the elves were poorly clad, that they had hardly any clothing on. What do you think the wife said to the shoemaker?

P. A. She said, "I am going to make suits for the elves."

T. And what did she ask her husband to do?

P. A. She asked him to make shoes for them.

T. Now go on with the story.

P. A. One night when the suits and the shoes were ready the shoemaker put them in the room, and then he and his wife watched again. When the elves

came they saw the clothes and immediately put them on.

T. And then?

P. A. Then they went to work again.

T. Don't you think that by this time the shoemaker had been helped enough? It was this way. The shoemaker did not cut out leather for that night. He simply placed the suits and shoes on the bench. Was not that a nice way of telling the elves that they were not expected to come back? Now tell me what the elves did when they were dressed?

P. A. They sang a song to show how happy they were, and then ran away and never came back.

T. That is what they did. When they saw the clothes and shoes they dressed themselves in the twinkling of an eye, and danced and capered about the room, till at last they danced out of the door and over the green.

Then the teacher should call upon pupils to tell this part of the story and then the whole story.

HOW BIOGRAPHICAL STORIES SHOULD BE TOLD

In telling stories from history or biographical stories the suggestions made in regard to story telling in general apply except as to the exercise of the creative imagination. It does not matter much whether a fairy tale is changed somewhat by the pupils and teacher, but it does make a difference whether a biographical story is changed or not. The fact side must receive most of the attention, but the attempt should also be made to show the influence of conditions on the life of the hero. The stories should be told in such a way that a desire is created in the children to emulate the goodness and the patriotism of the hero. Outlines made either by the teacher or pupils or both teacher and pupils will be found helpful in getting children to tell these stories.

The Boyhood of Lincoln

Over 100 years ago there stood on the banks of a small stream in Kentucky a log cabin. It was small and poorly built. There was no floor, no glass for the one window, and no door for the doorway. A bearskin was hung across the doorway, and a deerskin over the opening left for a window. The wind carried the rain and snow through the cracks between the logs, and though a great fire of logs roared up the wide chimney the room was often very uncomfortable.

This cheerless log house was one of many similar structures built by the early settlers and would have passed unnoticed were it not for the fact that in it, Feb. 12, 1809, Abraham Lincoln was born. At the time of his birth no one imagined that this child was destined to become one of the world's greatest men, and that he would be known in history as the martyr president, the emancipator of a race and the savior of his country.

In those early days the settlers for the most part could neither read nor write. Abraham's mother, however, was a cultured woman. She had come from Virginia where she had been given a good education. She was tall and dignified and made friends easily through her winsome ways and her many acts of kindness. Each day she read the Bible to her kind though ignorant husband, and when Abe was old enough to understand she told him stories of Joseph, Moses, David and Jesus. Thus did the boy drink in the lessons of truth and virtue which were to lay the foundations of a strong and noble character.

When young Lincoln was five years old he went to a school conducted for a few weeks each year by a Roman Catholic priest who traveled from set tlement to settlement. Imagine the surprise and chagrin of the boys and girls twice and thrice Abe's age when Abe marched to the head of the spelling class. His mother had been his teacher.

Slavery existed in Kentucky and poor men who owned no slaves and worked their own farms were looked down upon by the rich. When Abe was seven years old his father, Thomas Lincoln, resolved to move to Indiana where there were

no slaves and where all who worked and led good lives were respected whether rich or poor. He accordingly sold his farm and late in autumn moved his family to Indiana.

During the first winter the family lived in a temporary log house known as a "camp," a mere shed one side of which was open to the weather. By placing some slabs across the logs overhead, Abe's father made a bedroom for him. This room could be reached only by means of wooden pegs in the wall. There was no chimney, hence there could be no fire in the "camp." A fire, however, was kept burning just in front of the open side. Hanging over this fire was a large iron pot in which the cooking was done. During the winter Abe's father, who was a carpenter, hewed timber for his new home which was to be much larger and more comfortable than the one in Kentucky.

Abe's mother, as you can imagine, was a hard-working woman busy with her household duties from morning to night, but she nevertheless found time to continue the education of her son. Abe improved rapidly in his studies and before the winter came to an end he had mastered the spelling book and could take his mother's place in reading the Bible to the family. His mother also taught him to write. But besides teaching him the rudiments of learning, she did what was more valuable, she stamped her own high sense of duty and honor, her reverence for right and justice upon her boy. The world little knew at that time what a great debt it was to owe the mother of Abraham Lincoln.

Abe's life in their new home was a very busy one. Young as he was he helped his father in cutting down trees and in making a clearing. Besides this, Abe, who had learned how to handle a gun, kept the table supplied with meats of various kinds.

After living two short years in Indiana, Abe's mother was taken ill. The nearest doctor lived 40 miles away and could not be sent for. One day she called Abe to her bedside and said to him: "Abraham, I am going away from you, and shall not return. I know you will be a good boy and you will be kind to your sister and to your father. I want you to live as I have taught you and to love your Heavenly Father."

Death came to her soon after and she was buried by her kind and loving neighbor on a hill that overlooked the valley. Abe was sad at heart. He had loved and revered his mother. She had been his best friend and companion and he resolved that his life should reflect the teachings of this angel mother. Years later, after Lincoln had become a great man, he said: "All that I am, or hope to be, I owe to my dear mother."

One thing, however, grieved him sorely. No clergyman was present to conduct the funeral services. He knew of but one minister and that one lived 100 miles away. It was the minister who occasionally had preached for them in Kentucky. Abe had only shortly before his mother's death learned to write, and though he could not write well, he nevertheless wrote a long letter to this minister asking him to come to their Indiana home to preach a funeral sermon at the grave of his mother. It took three months for the letter to reach the minister. So impressed was the minister by the letter that he immediately made arrangements to go to Indiana.

Upon the arrival of the minister at Abe's home word was sent to all the neighbors for miles around, inviting them to attend the religious services. Such was the respect and love for this noble woman that over 100 responded. They sang a hymn, listened to the sermon, offered up a prayer, committed the departed mother to God's keeping and left for their homes.

Some time after the death of his mother, Abe secured a copy of *Æsop's Fables* and a textbook on arithmetic. He read the fables over and over until he could repeat them word for word. Unable to get a slate for his work in arithmetic, he used a wooden shovel instead. He used a charred stick in making figures and when the shovel was cov-

ered with them he planed off the surface and began again. In this way he soon became proficient in handling numbers.

About a year after the death of his wife, Thomas Lincoln married again. Abe's stepmother was a widow with three children. She proved to be very kind to Abe, and he soon came to love her dearly. She arranged to have Abe attend a school which had been opened in the neighborhood, and Abe proved to be a very industrious pupil. But while he was the best pupil in the school and liked his books, he also had the ambition to be a champion at wrestling and boxing. He must have thought that this ambition interfered somewhat with his being a good boy, for he wrote in his arithmetic:

> Abraham Lincoln,
> His hand and pen;
> He will be good,
> But God knows when.

Abe did not attend this school for more than a few months. His father was very poor and felt that he needed Abe's assistance in providing food for the family. Abe accordingly left school and spent his days in chopping down trees and helping his father in clearing the land and hoeing the corn. He also helped his father in his work as a carpenter.

However, his stepmother while realizing the necessity of Abe's helping the family, also appreciated his love for learning. She perceived in her stepson what the father did not see—a nature rich and rare—and she resolved to do what she could to help in developing Abe's intellectual powers. Within a short time she managed to buy or borrow for Abe the *Life of Henry Clay,* Defoe's *Robinson Crusoe,* Bunyan's *The Pilgrim's Progress,* a history of the United States and Weem's *Life of Washington.*

Abe worked by day and studied by night. Every night after the chores were attended to he could be seen studying his books by the light of a candle or the fire in the fireplace. He read the books over and over until he mastered them. So hungry was he for intellectual food that he walked ten miles to borrow a copy of the laws of Indiana. The neighbors also kept him busy writing their letters. This brought him in a little money which he used in buying more books. His stepmother declared: "Abe read everything he could lay his hands on, and when he came across a passage that struck him, he would write it down on brown store paper, study it, commit it to memory and repeat it again and again." Abe was fast becoming a self-taught scholar who was respected for his learning by the people for miles around.

When Abe was 19 years of age a man who had bought a large quantity of corn, pork and other farm produce asked him to take charge of transporting these products by means of a flatboat to New Orleans. With one assistant Abe piloted the flatboat to New Orleans, where he soon disposed of his cargo at a fair price and returned to Indiana. He received ten dollars a month for his services and considered this good pay.

In 1830 Thomas Lincoln, hearing of the rich prairie lands of Illinois, determined to move to that state. By this time his stepdaughters had married and his own daughter had died. Abraham was 21 years old and willing to go. The journey was a long and tedious one, but at length the party arrived at their destination and within a short time their new log house was built. Abe helped his father clear ten acres of land, and split rails to fence it in. He was a dutiful son and up to this time all his earnings had gone to his father. But now he was in sore distress. His clothes were wearing out and he had no money with which to get new ones. Finally he struck a bargain with Nancy Miller who lived in the neighborhood. She made him a pair of trousers and he split 1400 rails for her to pay for them. These were the rails which later made such a stir in politics.

In the spring of 1831 Abraham made another voyage to New Orleans. John

Offut, his employer, agreed to pay Abe 50 cents a day and $60 besides, in case the trip proved successful. Abraham together with two companions built the flatboat which was to carry the corn, beef, pork and pigs, and when it was ready the trip began. He was successful in reaching New Orleans without a mishap and soon disposed of his produce at a good profit. While in the city he visited the slave market, which made a deep impression upon him.

When Abraham got back to Illinois his employer induced him to take charge of his store at New Salem. It was a grocery, dry-goods, hardware, and boot and shoe store all in one. He soon won the respect and confidence of the customers, who appreciated his agreeable and polite manners and especially his honesty.

If Abraham happened to make a mistake in giving short weight or in figuring up accounts he was always ready to correct it. At one time a woman bought a half pound of tea. After she had gone he happened to look at the scales and discovered that he had given her only a quarter of a pound. He immediately weighed out an additional quarter of a pound, locked the store and ran after the customer. He caught up with her after she had gone a mile, and explained the mistake he had made. At another time, a customer paid six cents more than was right, and when Abraham closed the store for the night he walked three miles and back to return the money. Acts like these, small as they may appear to us, earned for young Lincoln the title of "Honest Abe," which clung to him during life.

But Abraham Lincoln while in charge of the store found many a leisure moment for continuing his studies. He bought a grammar, and though he found it difficult he mastered its contents in a few months. He studied algebra and geometry but found these subjects very difficult to master without a teacher. But he persevered and in a year or so he became proficient in these subjects also. Thus in the course of time, by sheer pluck and determination, and undaunted by obstacles, young Lincoln gained an education which was to qualify him for the great things which he was to accomplish when he entered public life.

Teacher's Preparation. The teacher should first of all read the story as carefully as Lincoln read some of the first books that fell into his hands. Then she should prepare an outline of the story somewhat as follows:

The Boyhood of Lincoln

I. The Log Cabin in the Wilds of Kentucky
   1. How it was built
   2. How it was made famous

II. The Education of the Early Settlers
   1. The inability of most settlers to read and write
   2. Abraham's mother, a cultured woman
   3. How she told him Bible stories
   4. How she influenced his character

III. Abe Attends His First School
   1. How he surprised the pupils by going to the head of the class

IV. Abe's Father Moves to Indiana
   1. The effect of the institution of slavery on Abe's father
   2. The "camp" in Indiana

V. Abe's Mother
   1. Her work during the day
   2. How she found time to teach Abe to read and write
   3. How she stamped her own character on Abe
   4. Her illness and last words to Abe
   5. Her death and burial
   6. How Abe secured a minister to preach a sermon at the grave of his mother
   7. How the neighbors attended the services

VI. Abe Secures a Copy of *Æsop's Fables* and an Arithmetic

1. How he studied the fables
2. How he studied arithmetic

VII. Abe's Stepmother

1. How she sent him to school
2. Abe's ambition to be a wrestler
3. Abe leaves school to help his father
4. His stepmother buys and borrows books for him

VIII. Abe and His Books

IX. Abe Takes a Flatboat Loaded with Produce to New Orleans

X. The Family Moves to Illinois

1. Abe helps his father
2. How he got a new pair of trousers

XI. Abe's Second Trip to New Orleans

1. The trip a success
2. Abe at the slave market

XII. Abe as a Storekeeper

1. How he won the confidence of his customers and the title "Honest Abe"
2. How he educated himself

When the teacher has made an outline similar to the above, she should again study the story so that she may be able to tell it with strict adherence to the outline.

Unless pupils have been told pioneer stories like the above, it may be well for the teacher to describe the great wilderness in the central part of the United States that was fast filling up with settlers early in the 19th century. She should picture the life of these early pioneers, their sacrifices, their sturdy manhood, their courage and other qualities manifested in their struggle to conquer a wilderness. If there are children in the class whose grandparents were pioneer settlers, it would be very interesting to have the children interview them and then have them tell the class about the personal experiences of these early settlers.

It is best probably to place the outline of the story on the board before telling the story. It will serve as a guide to the teacher when she tells the story and will be of assistance to the pupils in fixing the facts.

Unless there is a large map in the schoolroom showing the region of the United States referred to in the story, it may be well for the teacher to sketch one on the board. This might be done anyway, because it will add interest to the story and help the children in getting the story in its proper order.

After the teacher has told the entire story she should call on the brighter pupils to tell parts of it. It will be found that their reproductions will be faulty, but they should be encouraged to give them nevertheless.

When the pupils are able to tell the story in the rough, then the important work of the teacher begins. The story is one of the best in existence to teach not only the life of the early pioneers, but to show how a great soul can be brought to fruition even in a wilderness.

The story should again be told by the teacher, but this time it should be told unit by unit. After telling a unit the teacher should ask questions which will cause children to reflect on what they have heard.

Questions like the following may be asked:

1. Describe the log cabin in which Lincoln was born.
2. What made the cabin uncomfortable in rainy weather and in winter?
3. Tell what you know of Lincoln's mother. How did she influence the life of her son? Why was it necessary for her to work so hard?
4. What made it possible for young Abe to go to the head of the class in spelling?
5. Why did Thomas Lincoln go to Indiana?

6. Describe the "camp" in which the family lived.

7. What did Abe's mother teach him besides reading, spelling and writing?

8. How did the life Abe led help him in developing his intellectual powers?

9. What were the dying words of his mother? What meaning do you read into the words, "I want you to live as I have taught you"?

10. What prompted Abe to write to the minister? Do you suppose he consulted any one before writing the letter?

11. It took three months for the letter to reach its destination. Can you explain this?

12. Why, do you suppose, was the minister so ready to respond to Abe's request?

13. Was it a blessing that Abe had only a few books to read? Why?

14. What do you think of Abe's stepmother? What did she do to prove that she really loved her stepson?

15. Why do you suppose the neighbors respected Abe?

16. What earned for Abe the name, "The Rail Splitter"? Do you suppose this story helped him later in politics? How?

17. How long do you suppose it took Abe to make the trip to New Orleans?

18. Was Abe honest in little things? Do you suppose the habit of being honest in little things helped to be honest in big things?

19. Why do you like the story, *The Boyhood of Lincoln?* What appeals to you most in the story?

When the story has been worked out in the above way the entire story should be told by one or two pupils in class, and since there will not be time for each pupil to do this, the teacher should urge all of the pupils to tell the story at home to their parents.

Thus far the work on the story has been wholly oral. When pupils can tell the story well it should serve as a basis for written compositions. The teacher should not, however, ask pupils to write on the entire story. She should either assign a few units to the class, or allow each pupil to select the part he likes best and write on it, completing the composition in one recitation period. The written work may also constitute an assignment for home work.

The plan as outlined above for teaching the story of Lincoln will be suggestive of how any biographical story may be handled by the teacher. The thought should always be to present interesting pictures from the lives of great men in such a way that they awaken patriotic feeling on the part of the children and a desire to emulate the good deeds in the life of the hero or heroine.

Leonidas at Thermopylæ

Xerxes, King of Persia, determined to conquer Greece. He gathered an immense army of over 1,500,000 fighting men and 150 war vessels. Slowly the Persian hosts moved toward Greece. They met with no opposition until the Pass of Thermopylæ was reached, which leads into the very heart of Greece. Here on a narrow road between the sea on the one side and a steep mountain on the other were stationed about 7000 Greeks. The flower of this small army consisted of 300 Spartans commanded by King Leonidas.

When Xerxes heard that this handful of men expected to halt his millions, and that they were preparing for battle as though they were going to a feast, he laughed in derision. He sent messengers to the pass commanding the Greeks to surrender their weapons, but the Greeks answered, "Come and get them." When the Greeks were told that there were so many Persian soldiers that their arrows would hide the sun, one of the Spartans calmly replied, "So much the better, then we can fight in the shade."

Xerxes hesitated to attack the Greeks. He did not think it possible that such a small army really intended to resist him. He allowed four days to pass, declaring that by that time the Greeks would realize the hopelessness of their cause and would withdraw.

When he discovered that the Greeks did not intend to leave he ordered his soldiers to storm the pass. There stood the Greeks, each with a shield in the left hand and a lance in the right, forming a strong human wall. Again and again the Persians tried to break through the forest of lances, but each time they were forced back.

Xerxes then ordered the most valiant of his soldiers, the "Immortals," to advance against the Greeks. They also were driven back. Then the Persians refused to fight any more.

When Xerxes saw that his soldiers were afraid, he became angry and ordered them to be driven into the pass with whips. But certain death awaited them there, and perhaps the Persian army might have been prevented from entering Greece had not a traitor named Ephialtes disclosed to the Persian leader a secret path over the mountain.

At night Ephialtes led a part of the Persian army across the mountain. When Leonidas saw that he would be attacked from the rear, he allowed all the Greeks to withdraw except the 300 Spartans. Their laws forbade them to retreat.

Now began a terrible fight. The Spartans knew that they were about to die, but they determined to sell their lives as dearly as possible. They rushed against the Persians, who fell before their onslaught as grain before the scythe. When their lances were broken they fought with their swords. Long they fought and well. Finally, Leonidas, hard pressed on all sides, fell mortally wounded. The Spartans fought desperately to save the body of their leader. Three times they forced the Persians to retreat, but at last, beset on all sides and fighting valiantly, the little band of Spartans died the death of heroes.

Such was the Battle of Thermopylæ, which was fought in July, 480 B. C. Many years later the Greeks erected a marble column on the spot where Leonidas fell, bearing the inscription:

"Traveler, when you get to Sparta, tell our friends that we died obedient to the law."

Outline of the Story

I. How Xerxes Determined to Conquer Greece
   1. His army and the march to Greece
   2. The 6000 Greeks at Thermopylæ
   3. The 300 Spartans and their leader

II. How Xerxes Sent Messengers to the Greeks
   1. What the Greeks answered when told to give up their weapons
   2. What they answered when told how strong the Persians were

III. Xerxes Orders His Soldiers to Storm the Pass
   1. Why he at first hesitated
   2. The Greeks force back the Persians
   3. The "Immortals"
   4. How Ephialtes, the traitor, helped the Persians

IV. The Battle at Thermopylæ
   1. How the Greeks fought
   2. The death of Leonidas

V. The Inscription on the Marble Column

Crœsus

Crœsus, King of Lydia, lived about 550 B. C. He was the richest man in the world, and for that reason considered himself the happiest.

At one time, Solon, the wisest man in Greece, visited the Lydian ruler. Crœsus took great pride in showing Solon his beautiful buildings, furniture and pictures, his treasures of gold and silver and precious stones, and then said with great satisfaction: "Solon, you have traveled a great deal; tell me whom you consider the happiest man in the world."

He expected that Solon would say, "Crœsus," but instead of that the wise man said, "I consider Tellus, a citizen of Athens, the happiest of men."

"Why do you consider him the happiest of men?" asked Crœsus. "Because," said Solon, "Tellus lived in Athens while

that city was prosperous and happy. He had several children who were as good as they were beautiful. He gave them a good education so that they could provide for themselves. He was respected by all who knew him. He lived a happy and peaceful life, and in his old age was killed while fighting bravely for his country. His fellow citizens erected a beautiful monument to his memory."

"But," anxiously asked Crœsus, "whom do you consider the next happiest?" "Two Greek youths, Kleobis and Biton," was the answer. "They were brothers, and they possessed extraordinary physical strength. Both were victors in the Olympian games. Both loved and revered their aged mother, who was a priestess. At one time it became necessary for her to go immediately to the temple. But, her oxen not being ready, her sons put themselves to the yoke and drew the chariot to the temple, which was five miles distant. When the people saw this they lauded the strength and virtue of the youths and congratulated the mother upon having two such dutiful sons. The mother was so impressed by this that she hurried into the temple and prayed that to her children might be given that which they most deserved. Whereupon the youths, who were praying before the altar, sank into a deep sleep from which they never awakened. Thus did the gods honor these noble youths. Later the Greeks erected a monument in memory of their good deeds and their beautiful death."

"O! stranger from Athens," impatiently cried Crœsus, "do you consider my happiness of so small account that you refuse to compare me even with the lowliest of men?" To this Solon answered: "O! Crœsus, a poor man is often much happier than a rich man. A man's life is about 70 years long. During this time many changes may take place. No man should call himself happy before his death."

Some years after Solon had visited Crœsus, Cyrus, King of the Persians, led an army against Lydia. In a great battle fought near Sardis, the capital of Lydia, Crœsus was utterly defeated. The victorious Persians entered the city, determined to plunder and kill the inhabitants. Crœsus was captured and brought before Cyrus. In his wrath, Cyrus ordered him to be burned alive. The funeral pile was soon built, and Crœsus, bound hand and foot, was placed on top. The flames sprang up, threatening in a little while to envelop Crœsus, when suddenly he thought of the words spoken by the wise man from Greece, and he called out, "Solon! Solon! Solon!"

Cyrus heard the outcry, and, being curious to know to whom Crœsus appealed, he had him removed from the funeral pile, and through an interpreter asked him what the word "Solon" signified. Crœsus was silent for a time, and then said, "Solon is the name of a wise man to whose words I wish every monarch might listen, for it would be worth more to him than all the riches in the world."

Then he told Cyrus of his meeting with Solon in his palace, which the Persians had just destroyed. Cyrus was deeply affected. He realized that nothing was certain in life, and that misfortune might come to him as it had to Crœsus. His better nature asserted itself. With his own hands he removed the fetters from his captive, and not only promised him his freedom but begged him to remain with him as his friend and adviser.

Outline of the Story of Crœsus

I. Who Crœsus Was

II. Solon Visits Crœsus

1. Crœsus shows Solon his treasures and asks him a question
2. Why Solon thought Tellus was the happiest of men
3. Why Solon thought Kleobis and Biton were the next happiest of men
4. What Solon finally told Crœsus

III. The Defeat of Crœsus at Sardis

1. Cyrus orders Crœsus to be killed
2. What Crœsus called out while on the funeral pile

3. Cyrus asks Crœsus to explain the meaning of his words
4. Crœsus tells Cyrus of the time he met Solon

IV. How Cyrus Treated Crœsus

DRAMATIZATION

Suitable Stories. A fable or a folklore story, or any story in which lively action is demanded, may be furnished a class in the primary grades with the suggestion that the pupils dramatize it, the best version being the one selected for use by the class. This work appeals to pupils, and while it develops their poetic instinct, it aids materially in developing their power of expression.

In the fifth and sixth grades, pupils enjoy bringing Sir Knights into the schoolroom, thus making tales of chivalry, tales of real life to them. They take pride in perfecting the strong parts in plays and begin to look for dramatic ability in their associates. Scenes from *Little Women, Miles Standish* and *Rip Van Winkle* are adapted to fifth- and sixth-grade pupils.

In the grammar grades pupils prefer to dramatize stories that can be used without changing materially the language of the author. *The Ruggles' Christmas Dinner, The Cabbage Patch* and similar stories readily serve as a basis for dramatization in these grades.

Freedom of Expression. Criticism is sometimes directed against this kind of language work because of the possible resulting disorder, but with a tactful teacher, this freedom of expression and action can readily be directed into proper channels, and thus dramatization may be made the means of developing the imagination and increasing the power of initiative and organization of children.

Illustrative Exercises. In the illustrative exercises on dramatization the stories are introduced together with their dramatized version. This is done in the hope that pupils may discover how simple a matter it is to dramatize a well-known story. In the upper grades, pupils may be encouraged to write out the dramatizations, though as a rule good results are secured by having pupils assign parts to each other and work out the dramatization on the spur of the moment.

The Three Butterflies

At one time there were three butterflies, a white, a red and a yellow, that played in the sunshine, dancing from flower to flower. They did not grow tired because they were enjoying themselves. But when it began to rain and they observed that their wings were getting wet, they rapidly flew home. But the door was shut and they could not find the key, so they remained standing outside in the rain.

They then flew to a tulip striped with yellow and red, and said, "Tulip, open your flower just a little so that we may slip in and not get wet." But the tulip said, "I will open my flower only for the yellow and the red; the white I do not like." But the red and yellow butterflies said, "If you will not shelter our sister we will not allow you to shelter us."

It rained harder and harder, and they flew to a lily and said, "Allow us to creep into your blossom so that we may be protected from the rain." But the lily said, "I will take the white one because she looks like me, the others I do not like." Then the white butterfly said, "If you refuse to shelter my sisters, I will not go to you either. We prefer to get wet together rather than forsake one another," and they flew away.

Behind the clouds the sun had overheard all that the butterflies said and admired their love for one another. He forced his way through the clouds, drove off the rain, and before long it was again bright and beautiful in the garden. Soon the wings of the butterflies were dry again, and they danced till night, and then together they flew to their home to sleep.

The Three Butterflies

PERSONS REPRESENTED: A White Butterfly, a Red Butterfly, a Yellow Butterfly, a Red and Yellow Tulip, a Lily, the Sun.

SCENE I: A garden full of flowers.

Enter the three butterflies, dancing.

The Three Butterflies. Now for a jolly good time. *(Dancing and fluttering about.)*

White B. I am off for the lily. *(Dances off towards the lily.)*

Red B. I like the tulip. *(Dances off towards the tulip.)*

Yellow B. Catch me if you can. *(The other butterflies flit after the yellow butterfly, but do not catch it.)*

White B. What was that? Was it a drop of rain?

Red B. Surely it is raining. Oh, my poor wings!

Yellow B. Let us find shelter as quickly as we can. *(All fly to the tulip.)*

The Three B. Tulip, open your flower just a little so that we may slip in and not get wet.

Tulip. I will open my flower only for the yellow and the red, the white I do not like.

Red B. No, if you will not shelter the White Butterfly I'll not allow you to shelter me. *(Flies away.)*

Yellow B. Nor me. *(Flies away.)*

(The butterflies all remain quiet for a while)

Yellow B. Oh, it is raining harder; let us go to the lily. *(All fly to the lily.)*

White B. Please, dear lily, allow us to creep into your blossom so that we may be protected from the rain.

Lily. I will take you because you look like me, but the others I do not like and therefore will not take them.

White B. If you refuse to shelter my sisters I will not go to you either. *(The three butterflies join hands.)*

The Three B. *(Turning to the audience.)* We prefer to get wet together rather than forsake one another. *(Exit all.)*

SCENE II: The same garden.

Enter the sun.

Sun. Behind the clouds I heard all that the dear little butterflies said, so I have forced my way through the clouds, have driven off the rain and have made the garden bright and beautiful again. They will see me and come back to the garden.

The Three B. Thank you, dear Sun. Your rays have dried our wings and we can dance and play till bedtime. *(They dance about.)*

Sun. I must move to the west. It is getting late.

Butterflies. Oh, it is beginning to be dark. We must fly home and go to sleep. Good-night. *(Bowing to the audience.)*

Suggestions. It is suggested that the principal parts in *The Three Butterflies* be taken by five little girls and one boy, the girls taking the parts of the flowers and the boy the part of the sun. A number of girls and boys may represent the other flowers in the garden.

"In fixing up for the play" the children should if possible enlist the interest of their mothers. The teacher may suggest to the little girls how to "make up" for the various characters, indicating some inexpensive materials that might be used. The decorations should consist largely of colored tissue paper and should be simple and inexpensive.

The little girl who is chosen to represent a pink rose may come with pink paper bows on her shoes, a pink paper sash around her waist, pink bows on her shoulders and a pink bow on her head. If she is a little more ingenious or if her mother enters enthusiastically into the spirit of the play she may appear with a green cap on her head to which are attached numerous "pink petals," the whole suggesting a large rose. Around her waist may be tied a green sash, from which larger pink petals may extend downwards, or to which may be fastened pink roses.

In a similar way the red and yellow

tulip and the lily may be represented by two little girls decorated in the color of these flowers.

The decorations for the little girls who represent the three butterflies should be as nearly alike as possible, except, of course, as to color. A little drapery falling from their arms will help along the suggestion of wings, particularly when the butterflies "flutter about."

The boy taking the part of the sun should be one of those round-faced, good-natured fellows whose countenance seems to radiate sunshine. A wreath of scalloped yellow paper encircling his face will help along the suggestion that he represents the sun.

The Wise Judge

A rich merchant of the East was so unfortunate as to lose a large sum of money. He advertised his loss and offered a reward of $100 for the return of his money.

After a few days an old man called on him and said, "This is probably your money. I found it."

The merchant, who appreciated honesty in other people but who might have practiced more of it himself, counted the money, and while doing so conceived a plan whereby he might avoid giving the honest finder the promised reward.

"My friend," he said to the old man, "in reality there was $800 in this package, but I find there is now only $700 in it. I presume you helped yourself to the reward before handing me the money. You did right, and I thank you."

The man, however, insisted that he had not opened the package but had handed it to him in the same condition that it was when he found it.

Both men finally appeared before the judge to tell their stories. The one insisted that there was $800 in the package; the other, that he had not opened the package and hence did not know the amount of money it contained.

The judge, realizing the purpose the merchant had in view, had each man testify again under oath, and then, turning to the merchant, gave his decision as follows:

"If you lost a package containing $800 and this man found one containing only $700, it is plain that the money is not that which you lost. Hence I command you to give back this money to the finder of the package, who will keep it until someone comes who has lost $700 and can prove that it is his property. You, my dear merchant, must wait until someone comes who has found $800."

The Wise Judge

PERSONS REPRESENTED: A rich merchant, an honest man, a wise judge.

SCENE I: A street in a city in the Far East

Enter a rich merchant walking along the street. He suddenly stops as if much alarmed

Merchant. Why, I have lost my money! I have lost my money! I must find it; but, alas! I have no idea where I could have lost it. I must advertise my loss. I shall offer a reward of $100 for the return of my money. *(Exit.)*

SCENE II: Office of the rich merchant. *Enter merchant*

Merchant. I wonder if I'll ever get back the money I lost. Ah, here comes an old man. Perhaps he has found it, and means to return it.

The old man. Good morning! I read your advertisement in this morning's paper. I found this package of bills yesterday and I have come to return the money. *(Hands merchant the package.)*

Merchant. Indeed this is the package I lost. *(He counts the money and abstracts $100.)* My friend, there was $800 in this package, but now there is only $700. I see you took the reward before handing me the money. You did right and I thank you.

The old man. That is not true. I handed you the package just as I found

it. I expect you to give me the reward you offered.

Merchant. Oh, no. I do not intend to double the reward.

The old man. Very well. I shall take this matter before the judge. *(Exit.)*

Merchant. I hope I can convince the judge that the old man took the $100. *(Exit.)*

SCENE III: A Court Room

Enter merchant and finder of the money

Judge. Are you willing to testify under oath that there was $800 in the package you lost?

Merchant. I am.

Judge. Old man, do you testify under oath that you did not open the package?

The old man. I do.

Judge. If the package you lost, my dear merchant, contained $800, then this package which contains only $700 cannot be yours. I command you to return it to the finder. You must wait until someone comes who has found a package containing $800. And you *(turning to the finder of the money)* will keep this money until someone comes who lost $700 and can prove that it is his property. *(Exit all.)*

Diogenes

At the time of Alexander there lived in Corinth a very wise, though eccentric, man named Diogenes. He was seen one day walking about the streets of the city carrying a lantern and staring rudely at every person he happened to meet. When he was asked what he was looking for he brusquely answered, "An honest man, and such a one is hard to find."

One of the maxims which Diogenes carried to extremes was that man should have as few wants as possible. For this reason he never shaved or cut his hair. He wore ragged clothes and lived in a large cask. One day, observing a boy drinking out of his hands, he threw away his cup, convinced that he could do without it.

Alexander had heard of Diogenes and decided to pay him a visit. One day, accompanied by his lords and ladies, he called on the strange philosopher. He found him lying before his cask, sunning himself. When Diogenes saw the cavalcade approaching, he sat up, and returned the friendly greetings of Alexander.

Alexander engaged him in a lengthy conversation and found his replies and opinions both interesting and instructive. Finally he asked him, "Will you allow me to confer a favor upon you?" "Oh, yes!" was the quick response, "you can step aside a little so that the sunlight will strike me."

Upon hearing this retort the courtiers laughed at Alexander's expense, but the monarch, turning toward them, said, "Were I not Alexander, I should like to be Diogenes."

Diogenes

PERSONS REPRESENTED—Diogenes, people of Corinth, a boy, Alexander and his courtiers.

SCENE I: Corinth.

Diogenes is walking along the streets of Corinth, carrying a lantern which he holds in the faces of persons he meets.

A citizen. What, fellow! Why do you carry a lantern in broad daylight and hold it in my face?

Diogenes. I am looking for an honest man, and such a one is hard to find.

Second citizen. Take away the lantern. What are you looking for?

Diogenes. An honest man, and such a one is hard to find.

SCENE II: Cask with Diogenes lying before it in the sun.

He sees a boy drinking water out of his hands.

Diogenes. Boy, you have taught me a lesson. Hitherto I thought I could not do without my cup, but I find I can. *(Throws away a cup.)*

The boy. I use a cup only at home, where my mother will not allow me to drink out of my hands.

Diogenes. Boy, your eyes are better than mine; who appears to be coming this way?

The boy. It is King Alexander and his courtiers.

Alexander (entering). Diogenes, I have heard of your strange philosophy, and have come to hold converse with you.

Diogenes. I am at your service, but mayhap you may find my philosophy as poor as myself. *(They talk in low tones while the courtiers make merry over the strange habitation of Diogenes.)*

Alexander (aloud). Diogenes your replies and opinions are both interesting and instructive. I wish to show my appreciation of your worth. Will you allow me to confer a favor upon you?

Diogenes. Oh, yes! You can step aside a little so that the sunlight can strike me. *(The courtiers laugh at Alexander's expense. Alexander turns towards them.)*

Alexander. Were I not Alexander, I should like to be Diogenes.

The Blind Senator

After the first defeat of the Romans by Pyrrhus, the Greek leader assumed that the Romans would be anxious to make peace. So he sent an envoy to Rome to make preliminary arrangements for peace. The envoy took with him many beautiful presents, which he offered to the Romans, but which they refused to take.

Finally his crafty, flattering speeches exerted some influence on the Roman Senate. There were a few senators who declared themselves in favor of accepting the proposals of Pyrrhus, which would make the Greeks joint rulers with the Romans over Italy.

Then it was that an aged and blind senator arose. "Hitherto," he cried out, "I have mourned the loss of my eyesight; now I wish I were deaf, also, that I could not hear the unworthy exhibition of your cowardice. Are you afraid of a people who have for years been plundered by the Macedonians? Do you tremble before an adventurer whose father begged for the privilege of being the servant of Alexander?" This had its effect, and the Senate unanimously decided not to think of peace until Pyrrhus had been driven out of Italy.

When the envoy returned to Pyrrhus to inform him of the result of his mission, he said, "The Roman Senate appeared to me like an assembly of kings."

Soon after this, Pyrrhus left Italy, and southern Italy was joined to the Roman Republic.

The Blind Senator

PERSONS REPRESENTED—Pyrrhus, a page and Menius.

SCENE I: In the tent of Pyrrhus.

Pyrrhus. I have defeated the Romans with great slaughter, but my forces have also suffered severely. I wish I could bring about a peace. Ho, page! Ask Menius to come hither.

Menius (enters). What are your commands, my lord?

Pyrrhus. I desire to have you go to Rome to urge openly and by craft the necessity of making peace. Take with you costly presents which you may distribute among the Romen senators. You may propose to them that the Greeks would be willing to become joint rulers with the Romans of Italy.

Menius. I will do my best, my lord. *(Departs.)*

SCENE II: Menius before the Roman Senate.

Menius. Senators, King Pyrrhus the magnanimous sends greetings and asks you to accept as a token of his friendship these presents.

First senator. We are not in the habit of accepting gifts from our enemies.

Second senator. Take back the presents and tell Pyrrhus that in the next battle we'll take by force what we now refuse as a gift.

Third senator. I like not this friendship offering.

Menius. Well spoken, senators; I admire your frankness and independence. I think, however, you will agree with me that you have nothing to gain by prolonging the war. Your forces have met with a crushing defeat. Even now Pyrrhus is ready to march against Rome. But he does not want to destroy Rome unless you force him to do it. He wishes to preserve it and add to its glories.

A senator. Methinks there is some truth to what he says.

Another. With Pyrrhus as an ally we could conquer the world.

A blind senator. What! Hitherto I have mourned the loss of my eyesight; now I wish I were deaf, also, that I could not hear the unworthy exhibition of your cowardice. Are you afraid of a people who for years have been plundered by the Macedonians? Do you tremble before an adventurer who has begged the privilege of being a servant of Alexander? Is the old-time Roman courage dead?

Another senator. You are right. Pyrrhus has defeated us, but his army has suffered severe loss. He probably cannot hope for reinforcements from Greece, so he sends this envoy to us with presents and crafty flattering speeches to induce us to enter into an alliance with Pyrrhus which eventually would mean the overthrow of Rome.

Another senator. We'll not make peace until Pyrrhus is driven out of Italy. What say you, senators? *(They vote unanimously not to make peace, but to continue the war. Menius leaves.)*

SCENE III: The tent of Pyrrhus.

Menius (enters tent). Lord Pyrrhus, I have but now returned from Rome.

Pyrrhus. Has Rome declared in favor of peace?

Menius. I have failed in my mission. The Romans spurned the presents and the proposals of peace, and are now preparing for another conflict.

Pyrrhus. What think you of the Roman Senate?

Menius. The Roman Senate appeared to me to be like an assembly of kings.

Pyrrhus. Then my dream of conquest will not come true.

The Englishman and the Frenchman

One day a Frenchman rode toward a bridge which was so narrow that two horsemen could hardly pass each other. Just as he reached the bridge an Englishman arrived at the opposite end. When they came to the middle neither would turn out for the other.

"An Englishman does not make room for a Frenchman," said the Briton.

"My horse is also English," calmly remarked the Frenchman.

"Very well," declared the Englishman. "I can wait. I shall take this opportunity to read today's paper. Tell me when you are ready to allow me to pass."

Thereupon he took a newspaper from his pocket and began to read. Meanwhile the Frenchman had taken a pipe from his pocket and begun to smoke.

After an hour the Englishman turned to the Frenchman, saying, "Well?" But the Frenchman, imitating the haughty Englishman answered, "I see you have finished reading your paper. Kindly hand it to me, so that I may read it until you are ready to allow me to pass."

Then the Englishman, appreciating the absurdity of the situation, laughingly declared, "I enjoyed your company on the bridge immensely and take great pleasure in turning aside for an English horse."

The Englishman and the Frenchman

PERSONS REPRESENTED: A Frenchman, an Englishman.

SCENE: A narrow bridge.

Enter Frenchman and Englishman, who meet in the middle of the bridge.

Englishman. An Englishman does not make room for a Frenchman.

Frenchman. My horse is also English.

Englishman. Very well, I can wait. I shall take this opportunity to read today's paper. Tell me when you are ready to allow me to pass. *(Takes a newspaper from his pocket and begins to read.)*

Frenchman. While you read your paper I shall smoke my pipe. *(Takes a pipe from his pocket and begins to smoke.)*

Sometime later

Englishman. An hour has passed. What now?

Frenchman. I see you have finished reading the paper. Kindly hand it to me, so that I may read it until you are ready to allow me to pass.

Englishman. Enough of this nonsense. I enjoyed your company on the bridge immensely and I am delighted to turn aside for—an English horse.

The teacher should assign the parts and have the story acted.

THE STUDY OF POETRY

One of the purposes in the teaching of language is to awaken in children an appreciation and liking for poetry, "the mother tongue of nations."

Mother Goose Melodies. In the kindergarten, first and second grades, the poems selected should be read to children. The teacher should read them again and again, calling attention to the beautiful pictures, but introducing few explanations or questions. It is the music in the poems that appeals to the pupils more than the pictures. For this reason, in teaching poetry, teachers should imitate the method made use of by the home in introducing children to the Mother Goose Melodies. In the home the little two-year-old learns all of those selections in the course of a few weeks by hearing the mother read or recite them over and over again. They are learned without conscious effort, even though the thought may be somewhat beyond the comprehension of the child.

To teach poetry effectively in school, some fundamental conditions must be lived up to. The teacher must love poetry herself. She must appreciate the æsthetic culture value of this highest form of literature, in order to lead children to understand and appreciate it. The tone of voice in reading must harmonize with and suggest the thought, for nowhere is the living voice of the teacher so effective as in the oral presentation of poems.

Poems for Primary Grades. In selecting poems for these early grades, care should be taken to secure those that are suitable to the stage of advancement of the children and hence will readily appeal to them. Poets write from the heart, and poems, therefore, appeal to the heart. For this reason, also, the thought must be within the easy comprehension of the children. While humorous and story poems may be used in these early grades, most of the poems selected should have the stamp of the classic.

Poetry above the Second Grade. In the grades beginning with the third, two kinds of work should be undertaken. The reading of poems by the teacher, to give pleasure to the pupils and to give them a wide range of contact with poetry, should continue. In addition to this, a certain number of poems should be read critically each year in class. While the method of teaching will depend somewhat on the character of each selection, there are, nevertheless, some general things that may be considered as applicable to the teaching of any poem.

Method of Teaching Poems. While it is questioned by some teachers whether a poem that is to be studied should first be read orally by the teacher to the class, the arguments favoring such procedure seem pedagogically sound and this practice is here favored.

The teacher, then, should first read the poem to the class. A poem, however, is a work of art. Its language is on a much higher plane than that of everyday life. Poetry is characterized by rhythm, rhyme and versification, all of which suggest that, up to a certain point, the poem should be rendered in an artistic way. This also suggests the neces-

sity of careful preparation on the part of the teacher. She must not only appreciate the thought, but she must practice the oral reading until she is thoroughly at home with the selection.

The oral reading by the teacher will furnish pupils the general underlying thought of the poem, and, let us hope, a desire to study more deeply into its beauties, and to learn to read the poem as well as the teacher read it.

The careful study of a poem is not an easy task. Again, it behooves the teacher to make careful preparation for conducting the thought analysis based on the poem. Such special preparation puts the teacher at her ease and enables her to lead pupils into the higher realms of thought. However, it may be well to voice this caution in connection with the study of poems. The teacher should not overanalyze a poem, nor try to find out whether pupils grasp every possible shade of meaning represented or suggested by the poem.

Biography of Poets. In the middle and upper grades children should be introduced to the biographies of the poets whose poems they are studying. Poems represent interesting subject matter cast in a beautiful form. It is the province of the school to make pupils conscious of the art side of poems. A study of the biographies of the poets not only helps to explain a poem by making it more personal, but the personality of the poet throws light on his artistic temperament and feeling, and thus the poems come to have deeper meanings for the pupils.

Committing Poems to Memory. Short excerpts from many poems should be committed to memory by the entire class. The part selected should be learned in class under the direction and inspiration of the teacher. The selections should be recited from time to time throughout the entire school course, so that they may become a living part of the poetical repertory of the children. Only a few poems should be committed in their entirety. To commit many poems to memory would take too much time, and the resultant recitations by the pupils would partake too much of the nature of tests. The poems and parts of poems which are committed to memory should also be read and recited in concert at regular intervals according to rules laid down by the teacher. There is nothing more inspiring than the concert rendition of a soul-inspiring poem.

The Final Test. If the work of the teacher has been successful, pupils, especially in the higher grades, should be willing to study poems of their own selection independently of the teacher, and to read or recite them before the class. This may be considered the final objective point, which, if attained, will be an indication of the pupil's power and desire to include poetry in his private reading.

ILLUSTRATIVE EXERCISES

The Little Jewels

A million little jewels
  Twinkled on the trees,
And all the little maidens said,
  "A jewel, if you please;"
But while they held their hands outstretched
  To catch the diamonds gay,
A million little sunbeams came
  And stole them all away.

Conversation and Discussion. Before reading or reciting this poem to the class, the teacher should engage the pupils in conversation in order to prepare them to see the pictures the poem presents. In her questions the teacher should introduce words and phrases occurring in the poem, freely using the same tone of voice and emphasis that she expects the pupils to use when they render the whole poem.

The conversation may be somewhat as follows:

How many of you have seen the little dewdrops "twinkle" on the grass and on the trees early in the morning? Like what do they look? I think they look

like "a million little jewels;" don't you?

What happened to these little dewdrops when "a million little sunbeams came"? In this conversation the children should be encouraged to use the phrases, "twinkle," "a million little jewels," etc.

Presentation of the Poem. The teacher should then recite or read the poem in a light, musical way, suggestive of the manner in which the mother recites Mother Goose rhymes to her little two-year-old.

By accenting alike both syllables of the word "twinkled" in the second line, the rhythm is brought out clearly. In the fourth line the music is brought out best by accenting fully the first syllable of "jewel" and slurring over the second. Lines five and six should be read in such a way as to suggest suspense or expectation, because we know something is going to happen.

If the poem has been read well, three pictures will stand out clearly in the minds of the children.

Committing to Memory. When the poem has been read several times by the pupils after they fully understand and appreciate it, it should be committed to memory. In memorizing the poem the teacher should come to the assistance of the pupils. By working with the pupils the teacher can get them to learn the poem in half the time that it would take if they learned it by studying it by themselves.

The World Is Full of Beauty

There is beauty in the forest,
  When the trees are green and fair;
There is beauty in the meadow,
  Where wild flowers scent the air;
There is beauty in the sunlight,
  And the soft, blue beam above;
Oh, the world is full of beauty
  When the heart is full of love!

The Study of the Poem. By skillful questioning the teacher will succeed in getting from her class a number of expressions like the following:

I like the woods. The woods are beautiful. The woods are full of beautiful trees. I like the pretty flowers in the woods. Little birds fly about and sing sweet songs.

The meadow is beautiful, too. The air smells sweet from the wild flowers. The blue sky is beautiful. In the daytime the sun shines in the blue sky. At night the moon and the stars make the sky look beautiful.

The teacher may suggest to the pupils that the whole world is beautiful when the heart is full of love.

This prepares the pupil to appreciate the poem when the teacher reads or recites it to them. It should be read rather slowly and impressively, to give the imagination of the pupils time to construct and appreciate the beautiful pictures suggested by it.

The teacher should read or recite the poem a number of times; then she should help the pupils in committing it to memory. She should begin this by repeating the first two lines a few times and then having a pupil repeat them with the same enthusiasm and spirit manifested by the teacher. Then the entire class should repeat the lines in concert under the direction of the teacher. The first six lines are to be considered as introductory to the climax:

Oh, the world is full of beauty
  When the heart is full of love!

The Disappointed Snowflakes

Four and twenty snowflakes
  Came tumbling from the sky,
And said, "Let's make a snowdrift—
  We can if we but try."
So down they gently fluttered
  And lighted on the ground,
And when they were all seated
  They sadly looked around.

"We're very few indeed," sighed they.
  "And we sometimes make mistakes:
We cannot make a snowdrift,
  With four and twenty flakes."
Just then the sun peeped round a cloud
  And smiled at the array,

And the disappointed snowflakes
Melted quietly away.

Thought Analysis. This little poem can be used for reading in a third grade. After the teacher has read the poem expressively, she should engage the pupils in a conversation as suggested by the following questions:

How did the snowflakes come from the sky? How many were there? What did they say? Say it just as you think the snowflakes said it. Have you ever seen a snowdrift? Why did they look around sadly when they were seated on the ground? What did they realize when they were seated on the ground? What happened when the sun peeped round a cloud?

Reading by the Children. If the pupils have entered heartily into the analysis of this simple poem no trouble will be experienced in getting them to read it expressively. If the first quotation is not given expressively the teacher may read the lines herself and have the pupils imitate her; or, better, she may ask the pupils whether the snowflakes were certain they could make a snowdrift and were happy in the thought that they could make a large one. The rendering of the lines then should indicate self-assurance and happiness. The teacher should suggest to the pupils that the words "gently fluttered" tell us how to read the fifth and sixth lines. In helping the pupils to determine how to read the first sentence of the second stanza their attention should be called to the force of the word "sighed." Why should the last two lines be read slowly?

Farewell to the Farm

The coach is at the door at last;
The eager children, mounting fast
And kissing hands, in chorus sing—
Good-by, good-by to everything!

To house and garden, field and lawn,
The meadow-gates we swung upon,
To pump and stable, tree and swing—
Good-by, good-by to everything!

And fare you well for ever more,
O ladder at the hay-loft door,
O hay-loft where the cobwebs cling—
Good-by, good-by to everything!

Crack goes the whip, and off we go;
The trees and houses smaller grow;
Last, round the woody turn we swing—
Good-by, good-by to everything!

—*Stevenson.*

Preparation. As a preparation for the reading of this poem the teacher should engage the pupils in a conversation as suggested by the following questions:

How many of you have ever visited a farm? What did you do on the farm? What did you like best?

Thought Analysis. Read the poem through silently. Who, do you suppose, the children were that were leaving the farm? Did they live on the farm or had they visited on the farm for several days? Why were they eager to climb into the coach? Name the different things mentioned in the second and third stanzas to which the children said good-by. What makes you think the children had had a good time?

King Solomon and the Ants

As introductory to the thought analysis of the poem it might be well for the teacher to tell of the visit of the Queen of Sheba at the court of King Solomon. This furnishes the historical setting.

It is suggested that the teacher have the pupils read a paragraph or two silently and then answer questions by the teacher, to the end that they may describe the picture the poet had in mind. This prose description should then be compared with the poetic description.

A prose version is inserted below each stanza, which, it is hoped, may be suggestive of what the teacher may secure from the pupils, and which will be of assistance to the pupils in their expressive reading of the poem.

The many transposed phrases and clauses make it rather difficult to read it easily, and it may be necessary for the teacher to read certain stanzas to assist the pupils in their reading of the poem. Finally, the pupils may use the poem as a basis for a written composition.

Out from Jerusalem
The King rode with his great
War chiefs and lords of state,
And Sheba's Queen was with them.

A cavalcade of generals and statesmen is issuing from one of the gates of Jerusalem. At the head of this body of high-born lords and ladies rode King Solomon and the Queen of Sheba.

Proud in the Syrian sun,
In gold and purple sheen,
The dusky Ethiop Queen
Smiled on King Solomon.

The Syrian sun shines bright and is reflected from the gold and purple dress worn by the dark-skinned Ethiopian Queen. The Queen is proud of the opportunity of being with King Solomon. She is carrying on a conversation with him and is unmindful of everything except the King.

Wisest of men, he knew
The languages of all
The creatures great or small
That trod the earth or flew.

King Solomon was known as the wisest of men. He was wise not only in the affairs of men, but he knew the habits of all the animals of the forest and field, and therefore could understand and interpret their actions.

Across an ant hill led
The King's path, and he heard
Its small folk, and their word
He thus interpreted:

"Here comes the King men greet
As wise and good and just,
To crush us in the dust
Under his heedless feet."

The cavalcade was approaching an ant hill and the King imagined the ants were saying, "Here comes the King known throughout the world as wise and good and just, who is about to crush us in the dust under his heedless feet."

The great King bowed his head,
And saw the wide surprise
Of the Queen of Sheba's eyes
As he told her what they said.

When Solomon told the Queen what he thought the ants feared might happen, she was surprised to think that the great King Solomon would deign to consider the rights of such lowly creatures as the ants.

"Oh, King!" she whispered sweet,
"Too happy fate have they
Who perish in thy way
Beneath thy gracious feet!"

"Thou of the God-lent crown,
Shall these vile creatures dare
Murmur against thee where
The knees of kings kneel down?"

The Queen then told the King that she thought anyone should consider himself happy to die under his gracious feet, and that, since kings were proud to kneel before him, surely these vile creatures would not dare murmur against him.

"Nay," Solomon replied,
"The wise and strong should seek
The welfare of the weak,"
And turned his horse aside.

But Solomon was not influenced by the flattery of the Queen. He declared that the wise and strong should seek the welfare of the weak. By this he meant that it was the duty of a ruler to protect and improve the condition of his subjects. Solomon turned his horse aside and thus avoided the ant hill.

His train, with quick alarm,
Turned with their leader round
The ant hill's peopled mound,
And left it free from harm.

The other members of the party then also rode around the ant hill, and so the ants were left free from harm.

The jeweled head bent low;
"O King!" she said, "henceforth
The secret of thy worth
And wisdom well I know.

"Happy must be the State
Whose ruler heedeth more
The murmurs of the poor
Than flatteries of the great."

The Queen felt the rebuke of the King's words. With her jeweled head bent low, she said, "O King, now I know the secret of your greatness and goodness. I realize how happy the people must be who have a ruler who is kind and just to all his people."

America

My country, 'tis of thee,
Sweet land of liberty,
Of thee I sing;
Land where my fathers died,
Land of the pilgrims' pride,
From every mountain-side
Let freedom ring.

My native country, thee,
Land of the noble free,—
Thy name I love;
I love thy rocks and rills,
Thy woods and templed hills;
My heart with rapture thrills
Like that above.

Let music swell the breeze,
And ring from all the trees,
Sweet freedom's song;
Let mortal tongues awake,
Let all that breathe partake,
Let rocks their silence break,—
The sound prolong.

Our fathers' God, to Thee,
Author of liberty,
To Thee we sing;
Long may our land be bright
With freedom's holy light;
Protect us by Thy might,
Great God, our King.

Thought Analysis. Why is the thought suggested by the words "free," "liberty" and "freedom," brought out so often in this poem? To whom, do you think, the poet refers by "my fathers" in the first stanza? Why does he call this country "the land of the pilgrims' pride"? In the second stanza what does the poet declare he loves? What does "templed hills" suggest? How can rocks break their silence and prolong the sound? How has the poet prepared his readers in the first two stanzas for an appeal he makes in the third stanza? If we call the third stanza an appeal, what may we call the fourth? Read the fourth stanza in such a way as to bring out the thought that man, though free, humbles himself before his God.

Read the poem expressively and then commit it to memory.

Abou Ben Adhem

Abou Ben Adhem (may his tribe increase!)
Awoke one night from a deep dream of peace,
And saw within the moonlight of his room,
Making it rich and like a lily in bloom,
An angel writing in a book of gold:
Exceeding peace had made Ben Adhem bold,
And to the presence in the room he said,
"What writest thou?" The vision raised its head,
And with a look made all of sweet accord,
Answered, "The names of those who love the Lord."
"And is mine one?" said Adhem. "Nay, not so,"
Replied the angel. Adhem spoke more low,
But cheerily still, and said, "I pray thee, then,
Write me as one who loves his fellow men."
The angel wrote and vanished; the next night
He came again with great wakening light,

And showed the names whom love of
God had blest,
And lo! Ben Adhem's name led all the
rest.

—*Leigh Hunt.*

Why did the room look like a "lily in bloom" while the angel was writing in the book of gold? What was it really that made Ben Adhem bold? What is meant by "Write me as one who loves his fellow men"? Why, do you suppose, Ben Adhem's name led all the rest?

To a Waterfowl

Whither, midst falling dew,
While glow the heavens with the last
steps of day,
Far, through their rosy depths, dost thou
pursue
Thy solitary way?

Read the entire poem. What is the central thought suggested by it? What is a waterfowl? Did Bryant have a particular waterfowl in mind when he wrote the poem? What time is suggested by the first stanza? Why does not the poet use the form *you* instead of *thou?* What is the force of "solitary"? Describe the picture suggested by this stanza.

Vainly the fowler's eye
Might mark thy distant flight to do
thee wrong,
As darkly seen against the crimson sky,
Thy figure floats along.

What is the central thought of the second stanza? What is the force of "vainly"? Of "floats"?

Seek'st thou the plashy brink
Of weedy lake, or marge of river
wide,
Or where the rocking billows rise and
sink
On the chafed ocean-side?

What is meant by "plashy brink of weedy lake," of "marge of river wide"? What is the peculiar force of "chafed"? What kind of a coast is suggested?

There is a Power whose care
Teaches thy way along that pathless
coast—
The desert and illimitable air—
Lone wandering, but not lost.

Why "pathless coast"? What is meant by "desert"? What is the force of "desert and illimitable"? Why not "lost"?

All day thy wings have fanned,
At that far height, the cold, thin atmosphere,
Yet stoop not, weary, to the welcome
land,
Though the dark night is near.

What is the thought or picture suggested by this stanza? Would the land be a welcome land? What picture is suggested by "fanned"? What do you know of the power of flight of waterfowl?

And soon that toil shall end;
Soon shalt thou find a summer home
and rest,
And scream among thy fellows; reeds
shall bend,
Soon o'er thy sheltered nest.

What summer home is meant? What enjoyment is the fowl to find in that home? Will no hunters disturb the nest in the Southern climes?

Thou'rt gone, the abyss of heaven
Hath swallowed up thy form; yet, on
my heart
Deeply has sunk the lesson thou hast
given,
And shall not soon depart.

What picture is suggested by "the abyss of heaven hath swallowed up thy form"?

He who, from zone to zone,
Guides through the boundless sky thy
certain flight,
In the long way that I must tread alone,
Will lead my steps aright.

Why "from zone to zone"? What is the lesson taught by the flight of the waterfowl?

Picture the poet and his thoughts as he sees the waterfowl in its flight southward, and as it is swallowed up by the abyss of heaven. Add thoughts of your own and describe in writing the entire picture.

THE STUDY OF PICTURES

Why Pictures Should Be Studied. As the poet speaks through the poem, so the artist speaks through the picture. Pictures should be studied in school, because, like poetry, they can be made the means of developing the æsthetic taste of children. The study of the masterpieces in classic productions will not only assist in the development of the imagination, but will aid in the cultivation of higher ideals.

In all instruction the aim should be to make it as objective as possible. Next to the study of the thing itself comes the study of the picture of the thing. When it is impossible or inexpedient, as it may be in the case of science, history or geography, to study the things themselves, there is obviously no better plan than to use a pictorial representation as an aid in studying the subject under consideration. Furthermore, the study of pictures not only strengthens the power of analysis as applied to representations, but this power so gained is transferred to the study of things or natural phenomena and life. In all oral presentations by the teacher pictures help in vivifying and clarifying ideas. The study of pictures in connection with school work is still in its infancy, but in the course of time pictures and stereopticons will be used more and more as their pedagogic value is more widely recognized.

The study of pictures is on a higher plane than the reproduction of stories told or read. It is partly original composition work, inasmuch as the content is simply suggested. Thus the translation of a picture into words is an exercise of the creative imagination and thinking power.

What Pictures to Select. The selection of pictures is of the utmost importance if the efforts of the teacher are to be successful. No picture that is not characteristically correct should be used. It is evident, also, that the more perfect a picture is, the easier it will be to translate the picture the artist had in mind, into reality.

Caricatures, though ugly and inartistic to the adult eye, if characteristic and true to life, will appeal to children and may be used occasionally for language work. The limited use of pictures, as found in the comic supplements of metropolitan Sunday papers, does not imply that there is danger of cultivating a taste for poor pictures. A comic situation, while it may stimulate pupils' efforts at interpretation, will soon be forgotten when it has served its purpose.

Pictures represent, in the main, general ideas, and their interpretation demands the filling in of details, which is impossible if pupils are lacking in the necessary life experiences. Hence care should be exercised in selecting pictures that appeal to children's interests. As a rule those that suggest action, and a plot which is not too intricate, are the best.

Necessary Preparation. Before attempting to direct pupils in the study of a picture the teacher should be sure that she is master of it herself. She must know what she intends to teach by means of the picture and the order or method of procedure. How the artist conceived the picture under discussion, is the question she must assist the children in answering. This can only be done after careful and intelligent study and reflection. It is only in this way that a masterpiece will reveal its inner meaning and appear in the idealized form that led the artist to produce it.

How Pictures Should Be Studied. If the picture suggests a story, the questions of the teacher should be directed to secure activity on the part of the

pupils in bringing out that which immediately preceded the climax and that which followed it. It is this phase of the work that is most important, since the picture itself constitutes the main climax and naturally manifests itself directly and without much study. Latitude in this phase of the work should not only be allowed, but systematically encouraged. Thus, by describing what immediately preceded the climax, an introduction to the story is secured, and by describing what followed the climax, a suitable close is found and the composition, with its three parts, introduction, climax and close, is complete. When this stage is reached pupils should be required to tell the whole story suggested by the picture in a connected way.

If pupils have not the life experiences necessary to interpret a picture it is not suitable for study, but sometimes by judicious questions the teacher can call up in the pupil's mind the apperceptive mass necessary to understand and appreciate the picture.

The teacher should guard against having pupils simply enumerate what may be seen in a picture. The main thought for which the pupils are to look should always be borne in mind. While haste and carelessness in the study of pictures should be avoided, neither should pupils be required to spend too much time on a picture. Children like change, and tediousness in a teaching exercise is an unpardonable pedagogical sin.

THE DOCTOR

At times the teacher should say to her pupils, "This is what the picture tells me," and then give a full version of her interpretation as a model and inspiration for her pupils. When pupils have gained some power in reading pictures they should be encouraged to make a silent study of a picture and then tell what it means to them. The only function of the teacher would then be to ask questions if essential things have been omitted.

ILLUSTRATIVE EXERCISES

The following questions will suggest the method of procedure in studying the foregoing picture. What does this old man hold in his hand? To whom does it belong? What does the little girl want him to do with it? Who sent her? In what condition is the shoe? Study the old man's face. Study the little girl's face. What do you suppose he is saying to her? What is the little girl thinking? Is the old man really as cross as he wants to make believe? Study his face again and tell what you see hidden back of the cross expression?

Oral Exercises. 1. Tell all you can about the little girl and her torn shoes and who sent her to the shoemaker with them.

2. Tell how the shoemaker examined them and in what condition he found them.

3. Tell what he said to the little girl and how she felt.

4. Tell about the man's kindness of heart and how he finally decided to repair the shoes as well as he could.

5. Tell the entire story as suggested by the picture.

When the teacher has studied the picture she will be able to determine her method of helping pupils to study it. It is the climax of the picture that naturally appeals to the pupil first. For this reason the first series of questions should relate to the climax. But in telling the story suggested by the picture, there should be an introduction, a body and a close. It follows, then, that after the picture is discussed with pupils the outline which is to serve as a basis for the oral or written composition based on the picture should be in harmony with the arrangement of the theme in general.

After pupils have answered the above questions, and possibly others asked by the teacher, and carried on a free conversation, the pupils should be required to tell the entire story. To assist them in this, it might be well for the teacher to prepare a synopsis calling attention to the sequential order to be observed. This should differ slightly from the order of questions. It will be noticed that the first question brings out the climax of the story at once. This is in harmony with the manner in which the picture appeals to the children. However, in telling the story in a connected way it might be well to have the pupils tell what took place before the incident, and thus secure a proper setting for the story. But this setting depends largely on the viewpoint and experience of each pupil. Hence the teacher should not attempt to force her interpretation on the pupils, but urge them to supply their own setting. Then should follow the description of the climax, and finally that which may have taken place after the scene. In this way much opportunity is given for the exercise of the creative imagination.

WRITTEN COMPOSITION

First Steps. Written composition should not be begun until pupils have gained facility in writing and spelling and thus have removed, at least in part, the mechanical difficulties which would otherwise interfere with the work. Beginning in the latter part of the first grade, exercises can be introduced which are preliminary to the written work and which gradually pave the way for it.

This early work may consist in having children copy sentences from dictation based on the reader. Attempts at what might be called original work should also be introduced. The teacher, for example, might engage the pupils in conversation in such a way that they express a desire to write a note to a sick classmate. By judicious questioning the teacher can get a short sentence from the class like "Dear Dorothy, I hope you will soon be well." This the teacher can then write on the board in the form of a note for pupils to study. When the pupils have studied the words, the sentence can be

erased and the pupils be asked to write it from memory, signing their own names.

Composite Stories. In the second grade, work of a similar character may be undertaken. The teacher and pupils, working together, can build up a composition made up of not more than three or four sentences based on a story, nature work, or anything coming within the experience of the pupils. When the composition is finished, the pupils should study it under the direction of the teacher to the end that they may write it from memory.

In the third grade the writing of composite stories should be continued. But in this grade the compositions secured by the teacher and pupils, working together, may contain two or more paragraphs. This will enable the teacher to call attention to the necessity of telling the story in a certain way in order to please, that one thought must be given at a time, and that the sentences that belong together should be grouped into paragraphs.

Written Reproduction. The next step is to have pupils reproduce in writing, a short and simple story which they can tell well orally. Perhaps the simplest and easiest way to proceed is to have pupils make a study of a short story contained in the reader. Then the eye and the ear will be active in impressing the thought and the form in which it is cast on the minds of the pupils.

After pupils can tell the story well orally, there should follow a study recitation in which the teacher directs the drill exercises necessary to remove certain mechanical difficulties like spelling, capitalization and punctuation, to the end that when pupils begin to write, their efforts will not be hampered too much by these things.

It might be well also, in writing the first few stories, to have the teacher put questions on the board, in the answering of which the written composition will result. Or an outline may be placed on the board containing a few sentences, each one of which suggests a unit of thought which the pupils are to work out by themselves. This might later on give way to a briefer outline in which single catch words will suggest units of thought or paragraphs.

Whatever plan may be followed, one thing is indispensable; namely, that the teacher require the children to make a careful preparation before having them write. Some authorities go so far as to advocate the actual committing to memory of the short story, besides the preliminary drill in spelling and the use of some form of outline. This is the way the Greeks and Romans became so proficient in the use of their mother tongue. They read some of their simple classics, with good natural expression, they committed them to memory, they studied the spelling of the difficult words and then reproduced the selections in writing. Were we to benefit by their example we should spend considerable time in the third and fourth grades in having pupils read the best folk-lore stories, fables and other stories, aloud, discuss them, commit them to memory and then reproduce them in writing, and compare them with the originals.

But sooner or later in these lower grades, a higher phase of story writing should be introduced. When pupils can tell a story well orally, which they may have learned from their reader or their teacher, and a brief study recitation has been given in teaching them to spell difficult or unusual words, in syllabicating words, and possibly writing certain phrases and quotations that appear in the story, the pupils are in a position not only to clothe thoughts in beautiful words, but these thoughts are apt to awaken other thoughts and feelings and thus make for freedom in writing. The pen sharpens thought, develops new ideas and awakens the activity of the soul in a pleasant and beneficial way. The written exercise in which the content is furnished, and only the form is to be supplied, may result in the pupil's producing a composition which is a mixture of what

is remembered and what is furnished by their own thoughts.

Do not Interfere With Pupils. When pupils begin to write, the teacher should remain in the background. She should not interfere with the pupil's train of thought by talking. If it becomes necessary to assist individual pupils it should be done in a way not to interfere with the work of the class. Usually it should be possible for pupils to complete the writing of a composition in one recitation period. The fault to be found with early composition work is not that pupils are required to write too much, but rather that not enough time is devoted to the preliminary preparation, and so dawdling and halting work must be tolerated during the writing.

Penmanship. Legibility in penmanship should be insisted upon but nothing more. Penmanship is but an incident to written composition and should not receive undue attention. The pupil's thought should be centered more on the subject matter and the construction of sentences and less on the forms of the letters. Rapid writing should be encouraged. The labored drawing of letters which so often passes for writing should be banished entirely. It bears repetition, that while we should aim at the ideal, perfection either in composition or in penmanship can not be reached by children.

Freedom of Expression. Freedom of expression must ever be the keynote. Spontaneity, so essential to fluent expression, must not be sacrificed by the desire to secure finished compositions. Growth in choice of language should not be of the hothouse variety. Forms of expression that do violence to the simple, childlike disposition should be excluded.

The story is the easiest form of expression and should constitute the fundamental work in written composition in the third, fourth and fifth grades. If at all possible, pupils should write a short composition each day, based on a story found in the reader or furnished by the teacher A little at a time but at frequent and regular intervals should be the maxim in these grades in language. The compositions may be written in school or, if proper preparation has been made in school, they may be written at home.

Original Composition Work. While some attempts at original composition work may be undertaken in the third, fourth and fifth grades, it must not be forgotten that so long as spelling seriously interferes with this work, it is best to limit the composition work very largely to themes in which both subject matter and form are given. A still higher phase of written reproduction of stories results in having pupils ring changes in the story by supposing each person occuring in the story told it as though he had actually experienced it, or by having a supposed observer tell the story.

But certain original work may be undertaken in these grades, in the form of composite compositions. The first five grades of the elementary school may be considered the preparatory stage in which certain mechanical proficiencies are reached by the pupils, so that the work in the last three years may face the needs of life. Spelling and penmanship should, to a large degree, be mastered by this time. This makes it possible for the work in composition to show individuality both as to form and expression.

Topical Recitations Related to Composition Work. Beginning with the sixth grade, the knowledge side of the various branches also becomes more pronounced and thus a new phase of composition work is opened up. While the knowledge subjects contributed a definite amount of composition work, from the third grade on, their use was limited very largely to oral work. In the sixth, seventh and eighth grades the topical recitation in reading, geography, history, nature work, library reading and physiology becomes important as a training in composition, if clearness of thought

and logical sequence in the arrangement of what is presented are properly emphasized.

The Use of Outlines. An outline may be used as a prop for a time but sooner or later the oral presentation should be free. Pupils will be willing to talk on a subject or topic rather than write, because they know that in the oral presentation mistakes and repetitions are not so severely handled by the teacher as in the written composition. The struggle to express his ideas has a special charm for the average pupil and every success strengthens his self-reliance and encourages him to achieve better success in future efforts. But in these topical recitations the teacher should guard against mere reproduction of the subject matter. The best results are secured by having the children recast the material; that is, think it through from a different angle. Now, if after such oral presentations, there follows a written reproduction of certain units, it would be strange indeed if power and skill in written expression were not developed.

Compositions Should Grow Out of Living Speech. Written compositions are often weak and lacking in smoothness and directness. This may be due to the fact that it is difficult to keep the mechanical execution abreast of the flow of thought, but more often it is because pupils are not in the habit of considering written expression as living speech. If pupils were impressed with the thought that written exercises grow out of living speech, greater freedom, fluency and force would characterize them.

Compositions Should Be Short. Pupils should not be required to write long compositions even as a result of regular class work. Nor should they be asked too early to work out thought problems in writing. To have pupils work out problem questions in the various branches before penmanship and spelling have become automatic, would be like asking a person to do good thinking while lifting a hundred-pound weight.

Biography and History. The oral biographical work will furnish excellent material for written composition, but rarely should pupils be called upon to write an entire biographical story. They should choose favorite topics which will enable them to limit their compositions to single-page productions. A very good example is to have a class in history or geography write 20 minutes on any subject selected by the pupils, relating to the work gone over in class during the previous week.

The writing of summaries in history and geography is highly instructive if done in the right spirit. It is so natural for the mind to concern itself with interesting details, it is so difficult to sum up a chapter or topic by a few well-written paragraphs, that exercise in the latter leads to power of generalization and concentration.

Subjects for Original Theme Writing. Original theme writing should begin to be emphasized in the sixth grade. This must be based largely on what children have experienced or learned, or that which the imagination, backed by knowledge or experience, can readily suggest. The practice that obtained years ago of having pupils write compositions on subjects beautiful in name but entirely beyond them, is happily gone. The little 14- or 15-year-old no longer essays to write on *What I Can Do to Rejuvenate the World* or *The Mutability of Human Riches.* Teachers have come to realize that the subjects for compositions must be within the experience or comprehension of the pupils, and that if a subject demands little reflection but much looking up, it is not appropriate.

School life, life on the street, at home, life in the field, forest and streams, holidays, excursions and observations constitute fruitful themes for original compositions. Expression is natural to children. They like to talk about what they know, have seen or heard, or about what they think. When once the early storms of written composition have been suc-

cessfully weathered, they will enjoy equally well putting their thoughts in writing. The pupils, however, should not be expected to exhaust a subject. They should select a unit of what occurred in a brief period of time, and in their writing, limit themselves to that.

Securing Freedom. Written composition demands clearer thinking than oral composition. Lack of practice in writing often makes children fearful of making mistakes, of exposing weaknesses hitherto not disclosed. Volubility often ceases when the stage of "I take my pen in hand" is reached. It should be the purpose of the teacher to provide the conditions that will secure the best results. Children should be led to appreciate the fact that their thoughts are of interest, especially if they are cast in an attractive form, and that when they have chosen a subject and thought it through, they should revel in the freedom of composition.

Suggestive Topics. It may be advisable to prepare a series of topics from which pupils are to select their subjects for compositions, but unless the teacher feels sure that the topics suggested offer sufficient variety for the class, permission should be given to select any other topic, suggested possibly by those given by the teacher or the book.

Pupils should be permitted at times to indulge their inherent capacity for depicting the humorous or ridiculous. Life is not always serious. It has its humorous, often its comic, features to relieve its monotony and restore its elasticity. A teacher who suggests topics other than the conventional ones, will find herself in sympathy with her pupils and will thereby stimulate them to greater efforts.

How Casey Made a Double Home Run was a subject a teacher asked her pupils to write on. It did not suggest much content until she analyzed it as follows:

1. The last half of the ninth inning with Casey at bat.
2. The testy old man in the neighboring field.
3. How Casey met the ball and how it soared over the fence and struck the old man.
4. Casey's "double home run."

With the outline before them the boys were ready to write. They pictured the composition with their mind's eye, and the individuality and originality of handling it gave evidence of the fact that they were on a familiar footing with it. They put joy into their work, and whenever that is done, it goes without saying that the work is well done.

Purpose of Composition in Grammar Grades. During the last few years of the elementary school, the instruction in language must be so shaped by the teacher that she is depended upon less and less by the pupils. The wise teacher, too, will realize that she must exercise care not to interfere with the free and natural development of the language power of her pupils. She realizes that quiet, imperceptible forces are ever at work shaping the thought and its expression into language in an unknown and unconscious, but forceful way.

Special Aims of the Teacher. Her principal work will consist in urging the boys and girls to do their best. She realizes that speech reflects the soul and hence possesses character. She will do what she can to cause pupils to realize that they should possess not a weak, enervated speech, but a speech both oral and written that is hearty, convincing, full of good sense, truth and definite ideas, and that a good style will come if it comes at all, not through a conscious attempt at fine writing, but as the result of fine thinking and fine speaking.

LETTER WRITING AND TELEGRAMS

Why Letter Writing Appeals. Letter writing is a form of composition that appeals to all children. They see a reason for it. The father and mother write letters, and consciously or unconsciously it is impressed upon the children that letter writing is an essential element in their education. While other forms of

composition may be looked upon as tasks to be accomplished because set by the teacher, letter writing can be made a pleasure, particularly if freedom of choice as to subject matter is allowed. Pupils should write real letters to real persons and mail every one, if that be possible.

A Form of Written Composition. Strictly speaking, letter writing offers little that is new, with the exception of the form, for a letter may be a narration, an exposition, a description, or partake of the nature of all three forms of expression. If children have mastered the mechanics of penmanship, and have had training in oral and written English, letter writing will offer no difficulties to them.

Naturalness. Since a letter is a written communication addressed to a person at a distance, it contains what the writer might have said personally to the recipient of the letter. In no form of composition does the suggestion, be natural and write as you talk, apply so forcibly as in letter writing. The character and form of the letter should harmonize with the content. The style of a letter is modified by the fact that the letter is written to a stranger or casual acquaintance, to the teacher or to a fellow classmate, to an old man or woman, or a young boy or girl, to a friend that is well or to one that is ill, to a friend that has cause for happiness or one to whom grief or misfortune has come.

Relation to Theme Writing. The propensity to talk about themselves is very marked in children and presents a fine opportunity for developing power in original composition work. They are anxious to talk and write about what concerns themselves, their personal experiences, occurrences at home, their friends, playmates, their holidays, vacation doings, and a host of other things, all of which can be made to contribute to the idea of freely expressing their own thoughts in their own way, which is one of the highest aims in education.

Letter Writing in Primary Grades. Beginning with the first or second grade, notes of a few lines may be written. This work, however, is necessarily of such an elementary nature that it may be passed by in this discussion. In the third grade the informal and friendly letters should be taught by means of models. The models should be real letters treating of subject matter that appeals to children, and couched in language not much above the plane of the child. The practice of using letters written by eminent writers to their children or little friends as a basis for teaching children elementary notions of what letters should contain is questionable, to say the least. The letters that are to serve as models should be, first of all, children's letters. They should be childlike without being childish. The model letters should be of a proper length. Children in the fourth grade have, presumably, done a fair amount of written composition work and will write letters of more than three or four lines. The model letter should recognize this fact and be of reasonable length.

Use of Model Letters. Many models of letters should be introduced. The informal letters to friends or playmates, to parents, brothers and sisters, teachers and relatives, and the formal letters of invitation and acceptance, congratulation, sympathy and many others, should be illustrated by model letters which pupils should study with a view to imitating them.

Mechanics of Letter Writing. Naturally much attention should be devoted at the very outset to the mechanics of letter writing. If the placing of the heading, the salutation, the body, the close, the matter of indentation, the writing of the address, the placing of the stamp and the numerous other little things that go to make up a tasty form are rigidly attended to in the beginning, slovenly habits will not be formed.

Business Letters in Upper Grades. In the upper grades letter writing must

be made as practical as possible. While the friendly letter will continue to be used, the business letters should receive most attention. Pupils should be taught the essentials of good business letters by studying models to be imitated. Then by giving them frequent opportunities to write real letters to real friends and business men, the importance and practical value of letter writing will appeal to them, and theme writing in the guise of letters will be accepted as a matter of course and the purpose of written composition be realized.

Telegrams. A telegram should be brief, but not so brief as to be misleading. The meaning to be conveyed must be clear, even though it becomes necessary to use a few extra words. Since there is a fixed rate for messages containing from one to ten words no telegram need be condensed to less than ten words. Before sending a telegram it should be reread to see whether it conveys the exact thought you have in mind.

Blanks for telegrams are furnished by the telegraph companies. Usually the title, salutation and complimentary close used in letters are omitted in writing telegrams.

INFORMAL OR FRIENDLY LETTERS

Milwaukee, Dec. 26, 1912.

Dear Edward:

I wish you could have been with us last night to see our tree all lit up and to see the pretty presents we got. I think this is the best Christmas I ever had. At six o'clock mamma sent us children upstairs to wait there until she would call us. The time seemed awfully long, I tell you. But at last we were called. We rushed down and when we got into the parlor we did not know what to look at first. Everything looked so pretty. Mamma and papa had put up holly everywhere, and the tree had a new angel at the top and all around were the presents. The best present I got is my sled. She is a beauty. Papa says he does not like Christmas without a great deal of noise. So he got me a drum. Well, I think I can give him some noise. From mamma I got *Robinson Crusoe,* a blue necktie and a pair of slippers. Marie gave me a pair of gold cuff buttons. Now I want you to write me very soon and tell me about your Christmas and the presents you got.

Your friend,

Henry Jones.

Read that part of the letter which tells where it was written. Read what tells when it was written. Observe where the place and the date are written and the punctuation marks that are used. To whom is the letter written? This part is called the salutation. Observe where the salutation is placed. What punctuation mark is put after the salutation? Sometimes a comma is used instead of a colon.

Who wrote the letter? Notice where the name Henry Jones is placed. This part is called the signature of the letter. The part which precedes the signature is called the complimentary close. Henry might have used the complimentary close, Your chum, or Yours truly, instead of Your friend. Observe where the close and the signature are placed and what punctuation marks are used.

The part between the salutation and the close is called the body of the letter. Why is the letter interesting? What tells you that Henry enjoyed writing the letter?

Henry Jones, STAMP
315 State St.,
Milwaukee, Wis.

Edward Brown,

Waldo,

Wis.

Where is the stamp placed? Why should it always be placed there? Was a one-cent stamp or a two-cent stamp

ased? What punctuation marks are used in the address?

If a letter is addressed to a person living in a village or a small city the county is sometimes inserted in the address.

Write an answer to the above letter telling Henry Jones about your presents and how you spent your Christmas. Make your letter interesting. Write to him as though you were talking to him.

The girls in the class may write to a girl friend.

Be careful to write the place and date, the salutation, the close and the signature legibly and correctly. The address that is to appear on the real or make-believe envelope, is shown in the following diagram:

Henry Jones,
315 State St.,
Chicago,
Ill.

Los Angeles, Cal., Jan. 23, 1913.

Dear Mamma:

At last I've had my wish. I've had an automobile ride. There is nothing like an automobile ride. And now I must tell you all about it. At seven o'clock last night we heard a horn blow in front of our house and Ethel and I at once knew it was Uncle John come to take us out in his new automobile. We climbed in in a hurry and away we went. You can't sit still at first. You hop up and down on the seat and sway from side to side when you turn the corners. We sometimes went so fast that we could hardly bow to our friends when we passed them. We were not a bit afraid. It was the best ride I ever had. Mamma, do hurry up and get here as soon as you can. I want to see you very much. You know I have been gone a whole week.

Your loving little
Helen.

North Bend, April 6, 1913.

Friend James:

Next Monday evening at seven o'clock a number of boys are going to meet at our house to talk over forming a baseball club. The boys desire you to become a member of the team and hope you will be present at the meeting.

Yours truly,
Sam Newman.

What is the purpose of the meeting? Why should the purpose be clearly stated? Is the information with reference to the time and place of the meeting stated definitely? Why do you suppose Sam Newman says, "The boys desire you to become a member of the team" and not "I desire you to become a member of the team"?

Houston, Texas, May 26, 1913.

Dear Alice:

Our sewing-club met at our house yesterday. We missed you very much. I hemmed towels for mamma. The last time our club met I hemmed both ends of a towel, but this time I did not finish one end. Winifred is sewing a doll's dress. When I finish my towels I'll make a dress for my new doll.

We chose a president yesterday. She's a very nice girl and her name is Alice. Now do you know who she is? We meet at Ethel's next time. Won't you write a letter and send it to Ethel in time for the next meeting? The girls all send their love to you, and want you to come home soon.

Your friend,
Ruth.

St. Louis, Mo.,
June 30, 1913.

Dear Frank:

Yesterday we had the big show in our barn. You missed it, I tell you, by not being there. Jack was the skeleton and Jimmie the fat man. You had to pay extra to see them. Billy was the clown. He looked so funny. His mother had made him a suit, half red and half green, and his face was painted blue and white until you'd hardly know it was Billy.

Papa let us charge only a penny, but we made fifty-eight cents—that's ten

cents for each of us stars and eight cents for Jack and Jimmie.

But I haven't told you half enough about the show. We had a lemonade stand in the back yard but we made only seven cents on the lemonade. We did not sell much. I guess it wasn't strong enough. The tricks we performed were wonderful. Uncle Joe applauded the loudest. We are going to have another show in a week and we want you to join us. When are you coming?

Your friend,

Robert.

Blue Island, Ill.,
July 28, 1913.

Dear Henry:

We arrived home safely Sunday noon. Thursday Phyllis and I went to the park with our lunch. After lunch we started out on the sprinkling wagon. It began to rain, so we went and got one of the gardener's umbrellas. Then we went out again. It began to pour so hard that the sprinkling wagon came in. We started to run to the office, and just then a puff of wind turned our umbrella inside out. We got wet but we had to laugh. Soon the rain stopped, the sun came out and we ate our lunch in the park after all.

The other day Margaret was up here all day. We went over to my uncle's barn and jumped from the hay loft down into the place where the horse eats.

Yesterday we went to my Aunt Charlotte at Morgan Park for supper. After supper my Cousin Richard sent up a big kite with a Japanese lantern tied to it. It looked very pretty up there.

Is that "mother still chasing her boy 'round the room"?

Mother said that she was going to write to your mother. Tell Gertrude I am going to write her. Grandma sends her love to you all and so does mother.

Your friend,

Marie.

P. S. Enclosed find cigar bands.

Cottage Waldheim, Big Lake, Wis.
Aug. 23, 1913.

Dear Frances,

You should have been with us last night! The event of the season happened, and that was a marshmallow toast. Imagine a background of pines and darkness,—not city darkness, but darkness of the real kind—and then the monstrous bonfire with us all around it. My! it was romantic. But I shall begin at the beginning and follow a definite course in telling you of this event.

Saturday morning the boys rowed over to Spider Lake, a row of about six miles, and bought hundreds of marshmallows. To be sure they weren't so very fresh, but what can one expect out in the wilderness? We locked them up in an old writing desk down in the clubhouse, and, Frances, strange though it may seem, no one tampered with the lock.

When evening came we all went out on the lake and rowed until half past eight, then we met in the hollow between our cabin and the next one. Here the "tribe" had gathered together a large pile of wood and brush.

Soon our fire was burning. We all joined hands and danced around it—regular whooping, yelling Indians. Then when the flames died down and only coals were left, we toasted the marshmallows. The fun lasted as long as the marshmallows did, and then came some of the "homy" cozy kind of enjoyment. We sat around the fire in groups and sang college songs and good old German melodies. And yet it was a bit lonesome for a while—not lonesome exactly but quiet, you know. Then with a "Goodnight, Ladies," the party broke up and we went to our cabins. And that was the end of our toast. But we intend to have another soon.

I shall expect a letter every time the mail comes, for you know the agreement.

Lovingly yours,

Gertrude Brown.

LETTERS OF INVITATION

Houston, Dec. 2, 1912.

Dear Elsie:

I am going to have a party next Wednesday afternoon, and I want you to be sure to come. I have a new play room, and I hope you will enjoy it with me and my friends at the party.

Your friend,
Martha.

Houston, Dec. 4, 1912.

Dear Martha:

I just received your kind invitation to come to your party next Wednesday afternoon. Surely I'll be there. I am so glad you have a new play room for your party. I am sure it is very pretty and I very much want to see it.

Your friend,
Elsie.

Houston, Dec. 5, 1912.

Dear Martha:

I am very sorry that I cannot accept your kind invitation to your party next Wednesday afternoon. I leave tonight for a week's stay at my grandmother's. I should very much like to be with you, for I know you are going to have a good time. I shall see you as soon as I get back.

Your friend,
Bessie.

The first of the above letters is an invitation to attend a party. The second is a letter accepting the invitation and the third a letter declining the invitation.

Mention some of the things that Martha holds out as an inducement to Elsie to come to the party. What sentence particularly shows that the invitation is a hearty one?

What sentence in the second letter is a direct answer to Martha's "Now be sure to come"? What does Elsie look forward to the most?

BUSINESS LETTERS

Pine Ridge, Mo., Jan. 3, 1913.

The Walter Lowney Co.,
Boston, Mass.

Dear Sir:

Enclosed find fifteen cents in stamps, for which please send me a can of Lowney's Breakfast Cocoa, trial size. Please send me also a copy of the Lowney Receipt Book. I read your advertisement in the *St. Nicholas Magazine.*

Yours truly,
Richard Munson.

630 Broadfield Ave.,
New Orleans, La., Sept. 3, 1913.

Messrs. Hudson & Stark Bros.,
116 Adams St.,
New Orleans, La.

Dear Sir:

I desire to apply for a position as office boy in your store, or for any other position which may be vacant and which can be filled by a boy.

I am fifteen years of age. I graduated last June from the 13th district school, of which Mr. John Lawrence is the principal. He has promised to answer any inquiries in regard to my health and qualifications which you may wish to make. His address is 346 Spring St.

Yours respectfully,
Oliver Winton.

FORMAL INVITATIONS AND REPLIES

Miss Laura Jackson requests the pleasure of Miss Osborne's company at dinner, Saturday, September tenth, at six o'clock.

342 Wilson St.

Miss Mabel Osborne accepts with pleasure Miss Jackson's kind invitation to dinner, Saturday, September tenth, at six o'clock.

497 Park Place,
September ninth.

Miss Mabel Osborne regrets that a previous engagement makes it impossible

for her to accept Miss Jackson's kind invitation to dinner, Saturday, September tenth.

497 Park Place,
September ninth.

ILLUSTRATIVE TELEGRAMS

Suppose your father, Charles Morris, lives at 243 Prairie Avenue, St. Paul, Minn. You are visiting friends in Red Wing, Minn., and are expected home Aug. 8 on the train leaving Red Wing at 5:30 p. m. You missed your train and are obliged to stay over until the following morning. You expect to leave on the 8:15 train.

The following will illustrate the message as it might appear on the telegram blank:

Red Wing, Minn., Aug. 8, 1913.
Charles Morris,
243 Prairie Ave.,
St. Paul, Minn.
Missed train. Will leave at 8:15 tomorrow. Henry Morris.

Alliance, O., Aug. 9, 1906.
Dear Mother:

Grandma has just made up her mind to visit you while I am here and can take care of the house. She intends to leave here tomorrow on the 1:15 p. m. train, which gets to Canton at 2 o'clock. She wants you to meet her at the station. I am having a fine time.

Your loving daughter,
Emmy.

If a telegram had been sent instead of a letter it might read as follows:

Mrs. ————
Grandma leaves tomorrow on 1:15 p. m. train. Meet at station.
Emmy.

CORRECTION OF COMPOSITIONS

General Suggestions. The correction of compositions is always both a delicate and laborious task. It is so easy to interfere with the spontaneous efforts of pupils by mutilating beyond recognition their bold though rough and grammatically faulty productions, that there may be truth in the saying, "The school is sometimes the place where pebbles are polished and diamonds are dimmed."

And yet compositions must be corrected—but not all of them. We do not always correct pupils in their oral compositions. We realize that many mistakes made today will naturally be shed tomorrow. "Is them the trickers?" asked a little six-year-old boy one day when he saw a number of gymnasts issue from their dressing room. Can you conceive of a sentence of four words containing more mistakes than this question? Though he made most grotesque statements in his early efforts at expression, they have mostly all disappeared. And so it is with mistakes in written composition. We learn to write by writing. With much practice in writing, it is safe to say, there would follow constant improvement in ability to express thought.

Directions to Pupils. Occasional talks to the pupils on the necessity of their learning to write good English, together with general directions for improving their compositions, will often result in the disappearance of a host of little mistakes, irksome to both teacher and pupils.

Pupils should be encouraged to think through a subject even to the extent of preparing an outline, but they should also be impressed with the idea that when once the writing is begun, thoughts must be permitted to flow naturally without undue attention to their arrangement. This will insure naturalness and spontaneity, though at the possible sacrifice of some artificial rules of rhetoric.

As a rule, pupils should be allowed to correct and copy compositions which are to be submitted to the teacher. If the teacher is reasonably certain that a composition does not represent the best efforts of the pupil, it should be returned to him for improvement.

Purposes of Corrections. The corrections and comments made by the teacher have a twofold purpose. They

are made to assist the pupil in his efforts at self-criticism, and they reveal to the teacher whether his instruction has been successful or not. Written work should be examined with scrutinizing care but with a kindly feeling for pupils. Not every mistake, except it be in spelling, should be marked. The power of pupils to produce faultless compositions grows slowly. The weaker pupils should be dealt with more leniently than the bright pupils. The system of marks used in the correction of compositions should be uniform in all classes of a school.

Many mistakes in written work furnish evidence that the work was too difficult, that the preparation was not sufficient, or that the desire to do good work was lacking on the part of the class. In any such case, the assignment of the task was a mistake. It is essential to good work that the teacher cultivate a good spirit on the part of the pupils to the end that they will put forth their best efforts. This will result in fewer mistakes being made by the pupils.

Suggestive Corrections. Many of the corrections made by the teacher should be suggestive in character. Pupils should be thrown upon their own resources, provided these are not represented by an "empty well." If a passage is particularly good or shows effort on the part of the pupil, it is a good plan to make a marginal note to that effect. It will serve as an incentive to better effort.

Self-Criticism. At times it may be advisable to have a pupil write his composition on the blackboard, and have the pupils, under the direction of the teacher, point out the merits and the faults. In this way the spelling, punctuation, thought and style may be criticized and improved, and the pupils be led to appreciate the necessity of being self-critical in all they undertake to do.

ILLUSTRATIVE EXERCISES

The Life of a Newsboy

I have been a newsboy for nearly three years and can asure you I know the life he goes through in his youth. It is the same in carrying or selling papers in the morning as in the evening. I carry morning papers and sell the Sunday papers on Sunday Mornings. In the morning when you are real tired and the wind is blowing and you can feel its about twenty-two below zero out of doors you wish that you could stay in bed but when you think of your spending money depending upon wether you get up or not you choose to get up. After you have gotten your papers you start out with your mind on the profits.

Now you go along the street calling out "Morning papers." Some people you get a cross aneswer and from some you get a pleasant aneswer. When a man gives you a dime for a paper you tell every newsboy you meet. When your days career is ended you go to the news dealer and pay up and looking over your change (and) to see whether you have a cent over to buy a bun for who wouldn't be hungry.

Suppose the above composition, which was written by a pupil in a seventh grade, were placed upon the blackboard. The following directions and questions would serve to indicate how it could be made the basis of teaching pupils to be self-critical in correcting and improving their own compositions.

Spell correctly the words in the above composition that are not spelled correctly. Consult a dictionary if necessary.

Read the first paragraph. Read it again, omitting the second and third sentences. Would it improve the composition if the sentences were omitted? Why?

Should the fourth sentence be divided into two sentences? If the sentence is to stand as written what punctuation marks should be introduced? What part of this sentence do you like best?

Would it be better to begin the second paragraph with the last sentence of the first paragraph? Give reasons for or against it.

Would the sentence beginning with "now" be improved if the word "now"

were omitted? Should "morning" be capitalized? Why?

Read orally the sentence beginning with the word "some." Does it sound right or wrong? If it is wrong, correct it.

Try to improve the next sentence.

Suggest a more appropriate word than "career."

Divide the last sentence into two sentences. Read the last sentence using the expression "can afford" in place of "have a cent over." Does that express the thought of the writer better than he expressed it? What punctuation mark should be placed after the word "bun"?

Copy the above composition, and make all necessary changes and corrections to improve it.

Description of My Friend

The boy that I am about to describe is five feet tall and thickly built. He wears a dark brown suit which harmonizes perfectly with his thick, light brown hair.

His forehead is low and his eyes are large and grey.

He is very fond of football as his hair suggests. He is also a good runner, though few people would think so on seeing him for the first time. As a scholar, he is as good at his books as in the athletic field.

Altogether, my friend, with his good looks and disposition, is a very amiable companion.

Can you give an initial sentence other than the one used which would be more appropriate? Try to improve on the expression "thickly built." Should the third sentence constitute a paragraph or be joined to the preceding paragraph? Give reasons for your choice. What do the words "as his hair suggests" tell as to the "make up" of the boy who wrote this sketch? What thought did the writer evidently have in mind when he wrote the last sentence of the third paragraph? Change the sentence in such a way as to express that thought. Should the last sentence constitute a paragraph?

Description of a Classmate

This person which I am about to describe is tall and slender. Her hair is quite dark and is tied up with two red ribbons, one on the top of her head and the other at her neck. Her eyes are blue and her complexion fair. Her eyebrows and lashes are light and heavy. She generally wears a blue dress trimmed with red and white. She is very agreeable when without her little temper which does not come very readily.

In the above description is the word "quite" used correctly? Should the word "up" be omitted in the second sentence? What meaning do you suppose the last clause in the last sentence was to convey? Change the sentence so as to make the thought clear.

Jerry, The Tramp

Jerry was a tramp and a very ugly, morose creature he was. He was shabbily dressed in a ragged coat, shirt, and pair of pants. His face, hands, and bare feet were very dirty.

Jerry was lazy,—extremely lazy and, from what I knew of him, liked nothing better than to loll around in a shady spot and do nothing. He hated winter and always contrived to commit some petty robbery in the fall so as to be sent to the house of correction for six months.

One morning in late September as Jerry walked over a pasture on his way to a farm house, he met the owner in the field. The farmer called out cheerily, "Good morning, my friend. Wouldn't you like to help me hoe my potatoes for a few days? I'll give you a dollar a day."

Jerry groaned as he replied, "I don't think I shall, because, you see, I've got the rheumatism and when I work it gets worse."

He stole a loaf of bread for dinner and walked all afternoon toward the city. That evening Jerry fell in with a gang of thieves who were planning a large robbery. When the thieves went to the scene of the robbery, they found a squad of detectives present and the gang was arrested.

Instead of being sent to jail for six months, as Jerry wanted to be, he was sent to the penitentiary for two years.

Suggest a better word than "creature" in the first sentence. Give a reason for omitting the word "shabbily." Should the word "pantaloons" be used instead of "pants"? Should the word "bare" be omitted? Why? Improve the punctuation of the first sentence of the second paragraph. Does "and do nothing" add strength to the sentence? Show that in the above, description and narration are combined.

CRITICAL STUDY OF SELECTIONS AS MODELS OF STYLE

Purpose. It has come to be recognized that at some stage of the instruction in English a careful study of literary selections should be made as models of style. Pupils should be made conscious of the beauty, strength and clearness of the sentences which enter into the paragraph or selection under discussion, of their arrangement in the paragraph, and of the words or phrases that make the transition from paragraph to paragraph smooth and easy. They should be led to see that they must place related ideas as closely together as possible, that they must work towards a point or climax, that this movement must be natural and unbroken, and that sentences which interfere with the unity of a paragraph must be omitted.

Results. If pupils can be made to appreciate the fact that an author casts his thoughts in a certain mold advisedly, they may be led to study their own productions and apply the tests at their disposal, in improving them. Thus gradually will be acquired a language sense and a habit of self-criticism without which progress in English is impossible. We must, however, bear in mind that this phase of instruction is inexhaustible, and while it may have its modest beginnings in the grades it should continue as an integral part of the study of English throughout the high school and life.

ILLUSTRATIVE EXERCISE

Hans Sachs

Little Hans Sachs lived at a time when every lad was supposed to take up some trade when he had finished his schooling. His father was a shoemaker, and at the proper age Hans was apprenticed to a master shoemaker, to study faithfully for three years, learning to make and mend every imaginable kind of footwear.

There were many other apprentices who daily sat on the bench with him, and no one suspected Hans of being different from his companions. But he was, indeed, very different, for he was a born poet and musician. In the daytime he studied shoemaking, to please his father; in the evening, to satisfy his own deeper cravings, he studied under a very different kind of master—a mastersinger, as he was called.

To become a mastersinger was the great ambition of Hans' life; but his duty was to become a master shoemaker. At the end of a two years' apprenticeship he asked for his freedom. When the other shoemakers in surprise declared that he had still a year in which to study his art, his master showed them some work the lad had just completed, which was so excellent that Hans was set free, receiving, according to the time-honored custom, a violent box on the ear from his master.

Then Hans bade good-by to his parents, and started out, with his knapsack on his back, to make his way in the world. He was gone a long time, traveling through many places, and meeting with many adventures, but when, after many years, he returned to his friends at home, he brought with him the wreath he had won by a beautiful master song. He had obtained the wish of his heart.

After that Hans Sachs, master shoemaker and mastersinger, lived for many a year in Nuremberg, making and mending his townsmen's shoes, and also composing songs and poems that uplifted the people's hearts. The people of Nuremberg loved Hans Sachs, as well they

might; for when they were happy, he wrote songs to express their joy, and when they were in trouble, he wrote bright, funny plays and poems to cheer them up. In joy and in sorrow the people of Nuremberg turned to the man who was really the soul and spirit of the town. He was an exception to the saying that a prophet is never honored in his own land, for honors were fairly showered upon him. But through it all he remained the simple shoemaker, singing his songs out of the fullness of a glad heart. He wrote in all no less than 4275 songs and plays, many of which ended in some quaint little phrase such as "So says Hans Sachs," or "This hopes Hans Sachs."

A close study of the selection should be made, the pupils and teacher working together. The following questions may be suggestive:

What is meant by "apprenticed to a shoemaker"? What is meant by "to satisfy his own deeper cravings"? What, do you suppose, was a master shoemaker? A mastersinger? What kind of poems are those that "uplift the people's hearts"? Why could Hans Sachs write such poems? Why did the people of Nuremberg turn to Hans Sachs in joy and in sorrow? How did they honor him most, do you suppose? With what quaint phrase did he usually end his plays and songs? Did the phrases suggest a touch of egotism, did they show that he knew the magic of his name, or may they be considered as meaning "Perhaps I'm mistaken, but that is what I think"?

Read the first paragraph. Do the sentences follow each other naturally? What is the principal thought in this paragraph? Find a sentence or make one which summarizes the thought contained in each of the succeeding paragraphs.

What word or words in the second paragraph help to make the transition from the first paragraph to the second easy and smooth? Why do you suppose the writer placed the prepositional phrase at the beginning of the third sentence? Find the word or words in each succeeding paragraph that help to make the transition smooth and easy.

Is the first sentence of the third paragraph direct and clear? What makes it so? Why is the last sentence the climax of the paragraph? Are the sentences of this paragraph arranged in such a way as to emphasize this thought?

What sentence in the last paragraph do you like best? Why? What is there about the selection that causes you to enjoy it?

My creed is work; to follow duty's call
However far it lead across the plains—
Through trackless woods, or ringing on the hills;
To seek for pleasure in the realms of toil—
Still ever striving for a larger self
With which to do a service for the rest.

To lay a new path through the unknown way,
And leave some heritage e'en though so small
No other hand would love or care to leave.
Rejoicing ever in my brother's craft,
To follow system and the perfect law—
Be what I am, and do my very best
To lead a life which towers above the hills,
And points the way across the plains to God.

—*R. H. Wilson, State Superintendent of Public Instruction, Oklahoma.*

THE TRIUMPHS OF OUR LANGUAGE

Now gather all our Saxon bards, let hearts and harps be strung,
To celebrate the triumphs of our good Saxon tongue;
For, stronger far than hosts that march with battle-flags unfurled,
It goes, with Freedom, thought and truth, to rouse and rule the world.

Stout Albion learns its household lays on every surf-worn shore,
And Scotland hears it echoing far as Orkney's breakers roar;
From Jura's crags, and Mona's hills, it floats on every gale,
And warms with eloquence and song the homes of Innisfail.

On many a wide and swarming deck, it scales the rough wave's crest,
Seeking its peerless heritage, the fresh and fruitful West;
It climbs New England's rocky steeps, as victor mounts a throne;
Niagara knows and greets the voice, still mightier than its own.

It spreads where winter piles deep snows on bleak Canadian plains,
And where, on Essequibo's banks, eternal summer reigns;
It glads Acadia's misty coasts, Jamaica's glowing isle,
And bides where, gay with flowers, green Texan prairies smile.

It lives by clear Itasca's lake, Missouri's turbid stream,
Where cedars rise on old Ozark, and Kansas' waters gleam;
It tracks the loud swift Oregon through sunset valleys rolled,
And soars where Californian brooks wash down rich sands of gold.

It sounds in Borneo's camphor groves, on seas of fierce Malay,
In fields that curb old Ganges' flood, and towns of proud Bombay;
It wakes up Eden's flashing eyes, dark brows and swarthy limbs;
The dark Liberian soothes her child with English cradle-hymns.

Tasmania's maids are wooed and won in gentle Saxon speech;
Australian boys read Crusoe's life by Sydney's sheltered beach;
It dwells where Afric's southmost capes meet oceans broad and blue,
And Nieuveld's rugged mountains gird the wide and waste Karroo.

It kindles realms so far apart, that, while its praise you sing,
These may be clad with autumn's fruits, and those with flowers of spring;
It quickens lands whose meteor lights flame in an Arctic sky,
And lands for which the Southern Cross hangs its orbed fires on high.

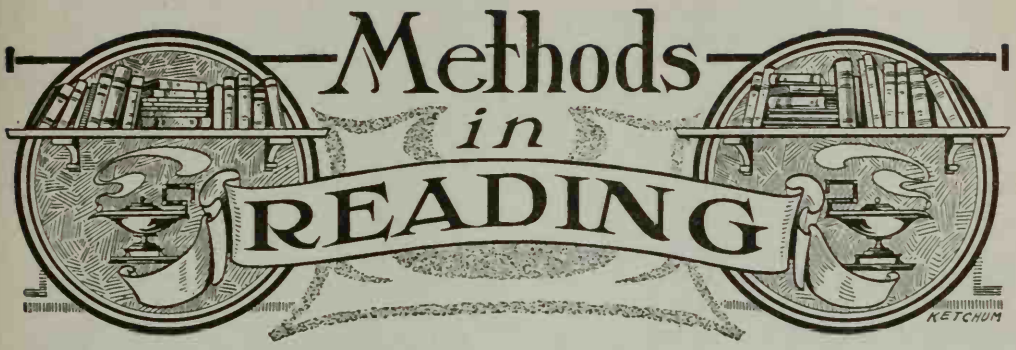
It goes with all that prophets told, and righteous kings desired,
With all that great apostles taught, and glorious Greeks admired,
With Shakespeare's deep and wondrous verse, and Milton's loftier mind,
With Alfred's laws and Newton's lore, to cheer and bless mankind.

Mark, as it spreads, how deserts bloom, and Error flees away,
As vanishes the mist of night before the star of day;
But, grand as are the victories whose monuments we see,
They are but as the dawn which speaks of noontide yet to be.

Take heed, then, heirs of Saxon fame, take heed, nor once disgrace,
With deadly pen or spoiling sword, our noble tongue and race.
Go forth prepared, in every clime, to love and help each other,
And judge that they who counsel strife would bid you smite a brother.

Go forth, and jointly speed the time by good men prayed for long.
When Christian States, grown just and wise, will scorn revenge and wrong,—
When Earth's oppressed and savage tribes shall cease to pine or roam,
All taught to prize these English words,—Faith, Freedom, Heaven and Home.

—James Gilbourne Lyon.



A PLAN FOR TEACHING READING

I. **Purposes of Teaching Reading**

II. **Method**

The pedagogical movement in the study of a selection may be stated as follows:

1. Statement of the Aim
2. Preparation for the New Lesson
3. Securing the Thought Content
   - (a) Methods
   - (b) Method of approach varies
   - (c) Thought analysis
4. Expressive Reading of the Selection
   - (a) The kind of selections to be used
   - (b) The basis of expressive reading
   - (c) The goal in expressive reading
   - (d) Proper use of the voice
   - (e) Proper breathing
   - (f) Proper phrasing
   - (g) Rapid reading to be avoided
   - (h) Recognition of the imitative faculty
   - (i) Oral reading at home
   - (j) The pupil reading should face the class
   - (k) Individual assistance by the teacher
   - (l) An experiment by an inexperienced teacher
   - (m) Correct posture of the body
   - (n) Reading of old selections
5. Reproduction of What is Read
   - (a) The preparation and use of the outline
   - (b) Valuable language exercises
   - (c) Outlines on knowledge subjects
   - (d) Written exercises

III. **The Reading of Poems**

(See chapter on *Language*)

IV. **Concert Reading**

1. Advantages of Concert Reading
2. Importance of the Teacher in Concert Reading

V. **Sight and Supplementary Reading**

1. Power Secured in Critical Reading to be Applied in Sight Reading
2. Children Should Have Access to Supplementary Readers
3. The Study Recitation in Sight Reading
4. Flighty Reading Should be Avoided
5. Rapid Sight Reading to be Developed
6. How the School Helps

VI. **Reading Only a Means to an End**

VII. **Illustrative Exercises**

1. The Story of a Lost Lamb
2. The Sandpiper

3. Trailing Arbutus
4. The Uprising—1775
5. Lincoln's Gettysburg Address
6. A Portion of Irving's *Rip Van Winkle*
7. A Selection from Longfellow's *Evangeline*
8. At the Open Chapel

PURPOSES OF TEACHING READING

1. To help children in acquiring power to get thought from the printed page to the end that they may draw on the wisdom of the ages as stored in books.
2. To help children form the habit of reading good literature.
3. To help children acquire power to render thought, feeling and emotion in an expressive way.

METHOD

While there is no "one way" of teaching reading upon which all teachers are united, the end sought suggests certain fundamental things as necessary to secure good reading. The pedagogical movement in the study of a selection may be stated as follows:

1. Statement of the aim.
2. Preparation for the new lesson.
3. Securing the thought content.
4. Expressive reading of the selection.
5. Reproduction of what is read.

Statement of the Aim. When a new selection is to be read the teacher should state what it is about. This should, as far as possible, be done in terms of the subject matter. This statement of the aim tells the pupil where he is to direct his attention. It must be brief and definite and should not reveal too much of the content of the reading lesson. Enough, however, must be given to awaken interest in the lesson.

Preparation for the New Lesson. Closely allied to the aim is the preparation for the new lesson. By means of a brief conversational exercise the teacher should bring out thoughts and experiences of the children that have a bearing on what they are going to read. This puts the pupils in a position to translate the new into elements of their experience.

Securing the Thought Content. There are various ways in which pupils may be introduced to the new lesson and good reasons can be advanced for each method.

Oral Reading by Teacher. When a new lesson is reached the teacher may read it through from beginning to end as expressively as lies in her power. The reasons for this method of presentation may be stated as follows:

(1) Imitation plays an important part in the education of children.

(2) The teacher's reading will be a model for the pupils to imitate. Unless the pupil hears the teacher read he will not hear good reading because his comrades read no better than he does.

(3) The pupils get a general impression of the selection and this leads to a quick and certain understanding of the subject matter.

(4) Because the pupils get the thought easily they can pay attention to the pronunciation and emphasis as used by the teacher.

There are, however, arguments that may be urged against this method, as follows:

While the teacher is reading, the pupils often sit passive. They may or may not get the thought as the teacher presents it, and even if they do they become dependent on the teacher and lose confidence in their own powers to read for thought. The pupil is to be made self-active and independent. Even though he may have trouble in getting the thought by himself, he should, after he has gained some mechanical proficiency in reading, be required to read the selection without any preliminary reading by the teacher.

Silent Reading by Pupils. It is claimed by many teachers that pupils should read the entire selection silently either at home or at school before they should be required to read it orally.

This silent reading, it is claimed, is quite essential. By means of it pupils

get at the story in the rough, and thus satisfy their curiosity concerning it. Pupils, too, are required to do but one thing, to get the thought. Were they to read the selection orally, without previous study, it would demand the doing of two things at the same time; namely, getting thought and giving expression to it. This might result in mechanical reading, in the introduction of set tones, and thus in the formation of habits inimical to success in learning to read. If there is time in the study recitation this silent reading may be done in class, but usually it is preferable to have pupils read the story silently during their study time in school or at home.

It is urged also, that children should get the new through the eye, not the ear, and therefore silent reading for thought should precede oral reading. It is also claimed that since nine-tenths of the reading that the children will do after they leave school is silent reading, they should be trained in it as soon and as much as possible.

Oral Reading by Pupils. What children can do themselves, even though they cannot do it well to begin with, they should be encouraged to do; hence beginning with the third grade the presentation should begin with the oral reading of the pupils.

It is held, however, by some teachers, that if this method is followed the oral reading of the pupils should be preceded by a drill on the pronunciation and meaning of new and difficult words. It is claimed that these should be selected beforehand and written on the board. In the drill on the words, pupils should be encouraged to pronounce unfamiliar words at sight and learn their meaning. The dictionary may be consulted for the pronunciation and meaning of some of the words. When the pronunciation of the words is secured, there should be quick, sharp drills to fix correct articulation and distinct enunciation.

But there are other teachers who are of the opinion that such a preliminary work on the mechanics of reading is unnatural, that the selections in a reader are properly graded, and that the best time to teach the pronunciation and meaning of a word is when the pupils first meet it in their reading. It is contended also that pupils will get the meaning of most of the new words by the context and hence the preliminary drill is not only unnecessary but unwise.

Silent Reading as a Means of Approach. The method of approach in studying a new selection should not always be the same. It will depend upon the character of the class and the selection. As a rule, however, except, perhaps, in the case of poems, it is best to have the children read the selection through silently before they are required to read it orally.

After the teacher has stated the aim of the lesson from the pupils' standpoint, and has spent a few minutes bringing the experiences of the pupils to bear on the new, there should follow the silent reading of the selection by the pupils. This silent reading may be done at school or at home.

Oral Reading of Units of Thought. The silent reading should be followed by oral reading. As a rule pupils should read units of thought. The unit of thought may be a paragraph, but often two or more paragraphs may make up a unit of thought.

While the pupil selected by the teacher is reading aloud, the other members of the class are acting as listeners; or rather they are getting the thought by listening to the pupil reading, and by reading silently what the one pupil is reading orally. After a unit has been read, two courses are open for the teacher.

After she has made corrections as to pronunciation of words, she may begin to ask questions on the part read, that is, she may begin with the thought analysis; or she may ask a child to tell in a connected way what was read, this to be followed by a thought analysis.

On the whole it is probably best to allow a pupil to reproduce the subject matter or unit of the story read. This reproduction will serve as a key to the

teacher. By means of it she will know how well the pupil understands the lesson. It will reveal the parts which the pupil failed to comprehend, or which have failed to make an impression on him.

Thought Analysis. The thought analysis of each unit should not be carried too far. If it is necessary to help pupils in getting at the meaning of words, it should be done by appealing to pupils who know the meaning, by having the teacher state the meaning of the word or substituting simple words for those used in selections, or by sending some pupil to the dictionary for the meaning of the word.

The purpose in this first analysis is to help pupils get the main thought of the paragraph or unit. When the essential thought has been secured, then, by means of questions, the minor thoughts which help to explain or illuminate the principal thought should be secured. The questions asked should stimulate thought; therefore they should contain only a few of the words which may be used in the answer. A question that will often be repeated, is, "What does this paragraph tell us?" In her questions the teacher should not spread over too much surface. Instruction should result in depth.

If the teacher makes explanations, they should be brief and to the point. She should be moderate even in offering explanations.

To vary the exercise, questions may be placed on the board. Pupils then can answer them by appealing to the book. The book is the key and they should be encouraged to use it. The teacher then will simply lead in the discussion, the explanations coming from the pupils. Before leaving a unit, the pupils should be led to find a heading for it and then give the thought of the unit in their own words. In this way each unit should be worked over. But again the caution—do not flood the pupils with questions and do not spend too much time in having them gain the first general survey of the selection.

Critical Reading. The reading lesson should teach children how to study; that is, it should teach children how to find the thread and purpose of what is read, how to group ideas, and how to secure unity of meaning from the diversity of detail.

It should, however, do more than this. It must teach the pupil to reflect on what is read, to get the inmost meaning so that he will enrich himself with new ideas and feelings. The pupil must put himself in a critical attitude, not simply a receptive one. He must compare the new with the old impressions. He must test the new by the old and accept or reject the new wholly or in part. Finally he must hold what is retained for future use and apply it, if possible, to his life.

It is necessary then to spend some time on a more critical analysis of the selection after the first reading as outlined above. By means of judicious questioning the inner or hidden thoughts may be suggested to pupils. They can be led to feel with the author, to enter into the very soul of the lesson, and thus be put into the best possible attitude to interpret thought and feeling correctly.

To reach this end the teacher must prepare carefully the questions to be used. The aim is always to assist pupils in visualizing descriptions, and in securing a clear appreciation of thought and feeling. But this critical study must not be too searching. Fine passages are often mutilated by excessive analysis of the beautiful pictures they contain, and if pupils are kept too long on a selection, they are apt to tire of it. Grammatical analysis may be applied, but simply as a means, not an end.

It should not be assumed that all selections are to be treated so fully. Only those rich in content or beautiful in form should serve for this purpose. There are two kinds of prose selections in every reader, one suitable for critical reading and the other for sight or silent reading. About ten selections should be studied critically each year, the number depending on the character and length of the selection used and upon the class.

Expressive Reading of the Selection. Just when to introduce the expressive

reading of a selection is still a debatable question. All oral reading should be as expressive as possible, but it is safe to assume that the oral reading following the careful thought analysis must be better than any first reading can be. Even educated persons find it difficult to read a selection expressively without first reading it for the thought.

The Kind of Selections to Be Used. Nor is it to be assumed that all selections are equally well adapted to teach expressive reading. The very nature of information lessons precludes their being of much service in expressive reading, especially if the subject matter is such as demands many explanations. The teacher, naturally, will be the judge as to the selections best adapted for expressive reading. She will, however, discover that the soul-stirring selections, full of feeling and emotion, are best adapted for this purpose. When such selections are read she will find that pupils will be willing to consider again and again every imperfection occurring in their reading with a view to correcting it, and thus bad habits in reading will be caused to disappear.

The Basis of Expressive Reading. Children have no trouble in talking expressively. The little four-year-old expresses his thoughts in a natural and hence an effective way. He does not need to study the art of expression to exhibit surprise, anger, fear or happiness. This power, possessed by all children, constitutes the child's foundation upon which the teaching of expressive reading must be based. When the child feels the emotion its translation into language is an unconscious act.

It should follow that when pupils understand a selection they should be able to read it expressively. But teachers know this is true only theoretically. The school is an artificial community, and children must be helped to become natural in their actions and doings in this community. Oral reading in school is always before an audience, and the timidity inherent in most children must be overcome before naturalness in their efforts can be brought about.

The work of the teacher, then, is of a twofold nature. She must see to it that her pupils thoroughly understand a selection before they are asked to read it expressively, and she must encourage them to abandon themselves to the thoughts and emotions suggested by the selection to the end that their natural conversational powers may come into play.

The Goal in Expressive Reading. The goal in expressive reading is reached if children read with sufficient volume and pleasant tone of voice, with correct pronunciation, slowly yet fluently, with natural but appropriate emphasis and with feeling.

Proper Use of the Voice. The teacher should direct pupils to use their voice properly. Too often we see children trying to read expressively with lips nearly closed. The mouth must be open as in speaking, for expressive reading is like speaking. The tone should come from the front of the mouth. It should issue freely from the mouth, and not remain lodged in the throat or between the teeth, or be forced upwards through the nose. The lips must be almost constantly in action. If there are words or phrases that demand special drill to secure correct pronunciation, time should be taken for this purpose.

Proper Breathing. The manner of breathing should receive attention. Pupils should be taught not to read until their breath is exhausted, but to take short breaths at frequent intervals. When the reading demands a full loud tone or rapid utterance, deep breaths are required. But it should be remembered that volume is not synonymous with screaming. To learn to use the breath properly is very essential, for it is not alone much speaking that causes hoarseness and fatigue, but speaking to a point where the breath is wholly exhausted.

Proper Phrasing. Pupils must be taught proper phrasing. They must read groups of related words, not isolated words. Proper grouping of words not

only aids in conveying the meaning that is intended, but makes possible proper breathing while reading aloud.

Punctuation marks, especially the comma, are not safe guides as to the expression. Rhetorical pauses are often introduced after groups of words where there is no comma, and often a comma and other marks are ignored in the oral reading.

No general rule for grouping can be given, since grouping depends so largely on the thought to be conveyed. But generally speaking, modifying words and words they modify go together, and often phrases and clauses constitute separate groups.

Rapid Reading to Be Avoided. To get children to read naturally and effectively is a high art and demands much skill on the part of the teacher. Possibly the greatest obstacle for the teacher to overcome is rapidity of utterance, which carries in its train a number of minor faults. While proper grouping and the use of rhetorical pauses reduce the evil effects of rapid delivery, experience teaches that rapid reading is poor reading, for it usually degenerates into "toboggan it down the page." Effectiveness should not be sacrificed for fluency.

Recognition of the Imitative Faculty. The teaching of reading, like that of writing, drawing and singing, can be greatly accelerated by recognizing the imitative faculty of children. Since success in expressive reading depends primarily on the teacher, her reading should be as nearly perfect as possible.

Shall pupils simply imitate the reading of the teacher? Slavish imitation is not desirable. Often by means of a simple reading, a passage hitherto hazy becomes clear. It enables pupils to gain a greater insight into the meaning of a selection, and thus makes it possible for them not only to imitate the reading of the teacher, but to catch the spirit of the selection. Pupils are often bashful and timid. They seem to be afraid of their own voices. It takes a live, enthusiastic and impressive teacher to influence pupils to put forth their best efforts.

Oral Reading at Home. When a selection has been worked over in school, and pupils are thoroughly imbued with the spirit of it, they should be urged to read it orally at home. In the home, where conditions are more natural than in school, pupils will be willing to put forth their best efforts. It may be said that extensive oral reading at home deepens bad habits. While this may be true to some extent, the danger will be obviated if the study recitation is carried out in the proper way. The time in school devoted to the individual is very short. The average time allotted to a class of 25 pupils is about 30 minutes. That means that each pupil will get a chance to read orally on the average only one minute each day. For a year it would mean 200 minutes, or a little over three hours spent in actual reading. This indicates that some time should be devoted to oral reading at home.

The Pupil Reading Should Face the Class. In the final expressive reading, the pupil should stand before the class, and his classmates should have their books closed. If his classmates are allowed to have their books open, they may listen to the reader but with the attention divided between him and the book.

Facing the class is an incentive to good reading. The pupil will naturally try to read in such a way that his hearers will get what he has to give. He will read more freely, convincingly and naturally.

Individual Assistance by the Teacher. It is a good plan for the teacher occasionally to assist pupils in presenting selections new to the class both as to thought and manner of expression. To read a new selection before a critical audience of fellow pupils furnishes the highest incentive in expressive reading.

An Experiment. A teacher once told the writer that her success in teaching reading was due largely to the fact that soon after she began teaching it occurred to her to extend individual assistance to her poorest reader. The pupil was a boy of Irish parentage, and she selected for him, Wendell Phillips' *Oration on O'Connell.*

She described how, after she had spent an hour one day after school working with him on the selection, the boy caught the spirit of it, and in a week he declared he was ready to read the oration before the class. The boy made a "hit" with his classmates, who had not suspected that he would ever show such ability, and from that time on the boy had to be cautioned not to devote so much time to his preparation for expressive reading.

The experiment had one other effect. It acted as a spur to every member of the class, and the period for expressive reading not only lost its terrors for them, but was looked forward to eagerly.

Correct Posture. One other suggestion may be in order. The teacher should insist on correct posture of the body in oral reading. The body should be erect, with head erect; the book should be held in the left hand nearly level with the eyes but a little to the left of the head. The volume of voice to be used will depend on the size of the room. One way to gauge the amount is to have the reader or speaker address himself to the pupils sitting in the farther end of the room.

Reading of Old Selections. While the teacher should have good expressive reading in mind in every reading exercise, it would be well to devote the entire reading period once a week to expressive reading. Special effort should be made to get the poorer readers and those whose natural timidity prevents them from doing as well as they can to read with fluency and expression.

Selections that have been studied in class should be read and reread. This will increase the pupils' facility in oral reading. The pupils will become enthusiastic over really good expressive reading whether by the pupils or teacher, and this will go far in causing the listless, heartless and rapid reading so often found both in the elementary and high schools to disappear.

Reproduction of What Is Read. The general purpose of reading is to secure power to get thought from the printed page. If this is admitted, then it follows that an exercise in reading is not complete unless pupils are tested to determine whether they know and remember what they have read. It would be a strange anomaly indeed to hold that we read only to forget.

The teacher, therefore, after she has worked over a selection with her pupils, should determine not only whether they understand it, but she should devote some time to helping pupils to remember what they have read.

But here again the character of the selection will determine whether a reproduction of the thought content should be demanded. If the selection read is one whose thought content is worth while, the following plan of securing the reproduction of the thought will be suggestive. The teacher may, of course, modify the plan suggested.

The Preparation and Use of the Outline. The headings of the units which were secured during the study of the selection should be used as the basis of an outline. A rereading of the selection should be required with a view of having the pupils secure subheads. When the outline has been completed the pupils should reproduce what was read, first by referring to the outline, and then without the outline. Then using only the general headings, the pupils should be taught to summarize; that is, to give the main points of the selection in connected discourse. This is a difficult thing to do and hence the teacher must come to the assistance of the pupils.

Valuable Language Exercises. The free oral reproduction of a large unit of thought also constitutes a valuable language lesson. To vary the exercise the teacher might say, "Tell this story as though you were the one concerned in it, and were telling it to your friends, using the pronoun "I".

Many variations of this kind of exercises may be introduced by changing the persons, time, place, etc., of a story, and thus also much practice in the art of oral exposition may be secured.

Outlines on Knowledge Subjects. During the last three years of the elementary school, pupils should be encouraged to prepare outlines of what they read in history, geography, physiology and other knowledge subjects without the assistance of the teacher, which outlines they should use as a basis for summaries to be made by them.

Written Exercises. A reading lesson may offer much material for written language work. When pupils are able to reproduce in detail the subject matter of an entire selection, smaller units or topics may be used as a basis for written exercises.

To avoid the introduction of many mistakes in the written reproduction, it is suggested that the teacher devote some time to a drill on the spelling of the difficult words and on some of the beautiful expressions found in the selections, to the end that they may be used properly in the written composition.

Though the outline may remain on the board while the pupils are writing, the teacher should never allow the pretty sentences, and the words that have been drilled on, to remain on the board. If that were done the pupils might be led to "build the composition around the words," which would result in stiff, mechanical and thoughtless compositions. It is even unwise to allow children always to have access to the outline. That also may result in mechanical forms of expression. It may be best to have pupils depend wholly upon themselves in this work. If exact reproduction of what is read is not insisted upon, pupils will put their individuality into the compositions, and while their efforts in the beginning may be somewhat crude, they will suggest freedom in thought and construction of sentences, something much to be desired.

THE READING OF POEMS

The reading of poems is discussed so fully in the article, *The Teaching of Language,* in this volume, that it is unnecessary to devote space to it in this chapter.

CONCERT READING

Concert reading is used in our schools only to a very limited extent, in spite of the fact that it can be defended on good pedagogical grounds.

It may be somewhat unnatural to have a whole class read in concert what was intended to be read only by an individual, but there are so many advantages in concert reading, it should not be condemned without a hearing.

Advantages. We seem in some instances to work by extremes. A few decades ago concert reading was used so extensively, but unpedagogically, that its use was abused, and the pendulum but now has begun to swing to the other side. It may not be amiss to insert an analysis of the advantages that concert reading seems to possess, if used properly.

1. All the pupils of a division of a class are kept busy at the same time.
2. Concert reading relieves the strain of the reading by individual pupils.
3. Timidity on the part of pupils disappears. There are children who, when they read alone, use only half their voice volume. When they are a part of a group, they are willing to put volume into their reading.
4. The subject matter appeals more strongly to the pupils.
5. Concert reading strengthens the desire on the part of all pupils to improve their expressive reading.
6. Pupils are conscious that they are of assistance in producing a general effect, and hence they gain confidence in their own powers.

Importance of the Teacher. Some things are demanded of the teacher to make concert reading effective:

1. The teacher must direct the concert reading somewhat in the manner that the teacher of singing conducts the singing lesson.
2. She must be the leader. She must recite with the pupils and direct with her hand so that all voices will remain together.

3. She must see to it that pupils do not read too loud. The natural tone of voice should not be transcended.

4. She must see to it that the reading does not become mechanical and poorly modulated.

5. She must be alert in detecting mistakes. Her eye and ear must be active so that she will both see and hear whatever takes place while the pupils are reading or reciting.

6. She must stand in full view of her pupils so that they may see her at all times to watch for directions.

7. Whole selections should be used in concert work only after much preparation and drill.

SIGHT AND SUPPLEMENTARY READING

Application of Power Secured in Critical Reading. The aim in all instruction is to make the pupil independent, to emancipate him from the leading strings of the teacher. By means of critical and expressive reading, the teacher can inculcate correct habits in thought getting and thought giving. During the entire course the power acquired in critical reading should be applied in sight reading. Some of the best work in reading can be done by begetting a proper spirit among pupils, in attacking new selections, to get the essential thought in one reading without the assistance of the teacher. This habit of reading a thing right off is one that has received but little attention, and yet it constitutes the most important objective point towards which all reading not purely rhetorical must be directed. About half the time from the third grade up should be devoted to sight reading. Supplementary reading, being essentially of the nature of sight reading, is here classed with sight reading.

Supplementary reading really begins in the first grade. It rarely happens that in this grade but one primer or first reader is used the entire year. As a rule, a number of first books in reading are read which supplement what the teacher may term her basic reader.

Children Should Have Access to Supplementary Readers. After the mechanics of reading have been fairly mastered, say at the end of the third grade, many supplementary reading books should be at the disposal of the pupils. There is no dearth of material. On the contrary, our libraries are filled with the choicest of children's books in biography, history, nature study and geography, to say nothing of the innumerable stories, myths and fairy tales so interesting to children because of their appealing so strongly to the imagination.

Every schoolroom should have a collection of such books. In most instances single copies of such books must suffice. These should be drawn by the pupils and kept in their desks ready for any spare minutes which may be devoted to their use.

Pupils should not be required to "recite" on the books they read in this way. A brief report made to the teacher should suffice.

The Study Recitation in Sight Reading. In each school there should also be several sets of supplementary readers for use in sight reading. When so used the teacher should introduce a brief study recitation to assist pupils in learning the pronunciation of the difficult words occurring in the selections.

If it is found that the pupils experience much difficulty in sight reading, there is but one course to pursue—simpler material must be secured. As a rule, pupils are required to read difficult selections too early and the inevitable result is poor reading.

Flighty Reading Should Be Avoided. To read many books in a flighty way, thus ignoring the thought and beauties of diction, brings no permanent gain and leads to careless, thoughtless reading. The teacher should not, therefore, in her desire to "finish" a book move rapidly from one part to another, but should remain long enough with each

part to make sure that the children have the thought. This is usually evidenced by their ability to read the selection intelligently if not expressively. It may be well, even in sight reading, to introduce some discussion of subject matter and occasional summarizations of what is read; otherwise the oral reading may degenerate into mere word calling.

Rapid Sight Reading to Be Developed. When the habit of reading for thought has been acquired, more attention can be devoted to rapid silent reading. Present day conditions demand the ability to read voluminously. The daily paper is read or scanned before breakfast. There are new magazines to be read each month. The city and private libraries are drawn on more or less regularly for books and periodicals. Nearly all of this reading is silent reading.

To become a rapid silent reader it is necessary to cultivate the ability of taking in whole sentences or large parts of sentences at a glance. This must become automatic so that the mind can lose itself in the thought of what is read.

How the School Helps. The school must help in developing the ability to read rapidly. This can be done by having the children read easy selections and stories intended for grades lower than the one in which they are used; by having the pupils read some of the less important narrative selections in the reader silently; by having them read library books and having them report briefly in class on what they have read; and by having them read readers and knowledge books which are not being used in class. But care must always be exercised in preventing children from reading books without reflecting on what they read.

READING ONLY A MEANS TO AN END

"Tell me what you read, how you read, and why you read," said an ancient philosopher, "and I'll tell you what kind of a man you are."

If our young men and women who have been trained to read in our schools were tested in this way, what would be the verdict? Are our young people reading too much without thinking about what they read? Is the class of literature such that it develops the mind and feelings of the reader? Do the library books which are read represent largely the class of books known as "light fiction," or do they also include books on science, travel, history, etc? These are questions which the school and the home must answer. Ability to read becomes educative only when it is coupled with a desire to read the right kind of newspapers, periodicals and books.

Reading is only a means to an end. Its purpose must ever be intellectual and moral culture. The habit of reading good books must be formed during the school period of life or the school and the home have failed in an important part of their work. After the pupil has left school, good books must become his true friends to whom he returns again and again. He will then be no longer lonely, for he will be surrounded by great and noble thoughts.

ILLUSTRATIVE EXERCISES

The Story of a Lost Lamb

I

1. There was never a sweeter child than dear little golden-haired Flora Campbell. Her footsteps were light as a fairy's, her cheeks were like the June roses, her eyes were blue as the summer sky. Her heart was all sunshine. Her thoughts were as pure and fresh as the flowers which she twined in her hair.

2. She talked with the birds, the brooks, and the blossoms. And at sunrise, every morning, when the shepherds went out with their flocks, you might hear her singing among the hills. All loved the gentle little child; for she was kind and good and fair.

II

3. It is evening among the hills. The sun has set, and it is growing dark in

the narrow valleys. One by one the stars are seen in the sky, sailing with the new moon among the summer clouds. In the cottages the tables are spread for supper, and the lamps are lighted.

4. Where now is Flora Campbell? She was never so late coming home. Her grandfather has been to the door a dozen times to look for her. "Have you seen Flora?" he asks of every one that passes by.

5. He cannot sit down to supper, and Flora away. He looks up to the hills and his lips move in prayer.

6. Flora's mother stands by the window and sees the last light of day fade away upon the mountains. Her lips move, too: "Kind Father in heaven, keep all harm from our dear lamb and bring her safe home again!"

III

7. Gaffer Campbell went out into the street, leaning on his staff. He knocked at every door. At every door he asked the same question: "Have you seen my grandchild, Flora?"

8. One man said that he had met her far up on the mountain gathering wild flowers.

"When was that?"

"It was near noon, I think."

9. Another man had seen her in the path that leads to the Moss Glen. She was sitting on a rock and making a willow basket for her grandfather. That was early in the morning.

10. Still another man had seen her. He had passed her near the head of the lake, only an hour before sunset; and she was carrying a basket of flowers on her arm.

"But where is she now?"

"We must go out and find her at once!" cried several of the young men.

11. "Ah me, Gaffer Campbell!" said a white-haired old shepherd. "I was afraid that something was about to happen. The youngest lamb of my flock was lost in the hills today."

"Heaven grant that my little lamb may be safe!" said Gaffer Campbell.

IV

12. Everybody in the village knew now that little Flora was lost. Soon the men were ready to go in search of her. Bright torches shone on the hilltops and in the valleys. Up and down the mountain paths the young men went, calling, "Flora! Flora!" But there was no answer.

13. Gaffer Campbell leaned upon his staff. He said not a word. He could not weep; for his heart was too full. But Flora's mother sat in her cottage, calling the name of her child.

14. The village pastor came. He had heard that Flora was missing, and he had come to speak words of hope to her friends. "Do not weep," he said. "Flora will be found."

15. But her mother still cried, "The child is lost! the child is lost!" "He who takes care of the lambs in the winter storm, will take care of your child," said the old man.

V

16. Just then they heard a dog bark far down in the deep valley called Moss Glen. They saw the torches passing quickly toward the same place. Gaffer Campbell and the pastor started at once to the glen. But Flora's mother passed them and ran wildly up the narrow path. They looked down into the dark glen. They could hear the dogs very plainly now.

17. A little farther and they came to the edge of the deep chasm called the "Deer's Mouth." Here the young men were standing with their torches. They were trying to look down into the chasm. But all was dark there. They could hear no sound but the quick, sharp barking of the dog. It seemed to be far, far below them.

18. "We must go down!" cried one of the young men. "That is my dog Louth; and he knows Flora as well as I do."

19. "Yes, we must go down!" cried another. "Where are the ropes?"

20. Soon long ropes were brought. Strong men held them while Donald, Louth's young master, made ready to go down into the chasm. He took hold of a rope, and swung himself from the edge of the rock. Down, down, he went. He could see the bright torches above him; but when he looked down there was only darkness.

21. At last Donald's feet touched the ground below. His dog ran to meet him. By the light of the torch which he held in his hand, he looked around him.

22. What did he see? There on a thick bed of moss lay little Flora Campbell. She was holding in her arms the lost lamb.

23. Donald went close to her and looked at her. Her eyes were shut. She was asleep. He looked at the little lamb. He saw that around one of its legs was a ribbon from the child's hat. Then he looked up, and called to his friends above, "Flora's safe! Flora's safe!"

24. The sound awoke the little girl. She looked around, and saw the young man.

"Dear Donald," she cried, "I am so glad you have come! Now we can save your lamb."

VI

25. The good people of the village soon learned how it had all happened. Flora had seen the young lamb fall into the chasm. Looking over the edge of the rocks she saw it lying at the bottom of the Deer's Mouth.

26. She did not stop to think, but she began at once to climb down to it. It was no easy thing to do. Few men would have been brave enough to try it.

27. But at last she was safe at the bottom. She found that one of the lamb's legs was broken, and she bound it up with the ribbon of her hat. Then she held the little creature in her arms till she fell asleep on the bed of moss.

28. The people of the village were very happy that night, when they carried Flora home. The child had never been so dear to them before.

29. Donald's father gave her the lamb that she had saved. And often after that, Flora might be seen playing on the hillside with her little pet; and everybody that met her spoke to her kindly, and whispered, "May heaven bless the dear child!"

METHOD

Introductory Statement. As has been mentioned, there are two kinds of selections in a reader, the one to be read and studied carefully, and the other to be used more like sight and supplementary reading. *The Story of a Lost Lamb,* because of its high literary value and beautiful thoughts, should be studied in detail to the end that the pupils may thoroughly grasp and exhaust the content and reproduce it in its fullness of meaning. Thus will the power and habit of reading for thought be strengthened and attention be directed to beauties of diction which will have a direct bearing on the art of oral and written exposition.

Statement of the Aim. The teacher should state the aim somewhat as follows: "We shall read about a sweet little girl who helped to save a pretty little lamb." It will be observed that this aim relates to the important part of the content of the lesson and is so worded that it awakens an interest in the new, which is the story.

Preparation for the New Lesson. In the so-called preparation the teacher should enter into a conversation with the pupils to call up old impressions and experiences which have a bearing on the new lesson. Questions like the following may be used:

Why do you love your little sister? Suppose you were ready for supper and your little sister were not there. A half hour passes and she has not come. How would your mother begin to feel? Soon it may dawn on you that your sister may

be lost. What will your parents do? Why will the neighbors join in the search? Will they do it the more earnestly if they like your sister?

Further Suggestions. Again the teacher may state the aim: This story tells us about a little girl who was lost while trying to save a pretty lamb. I wonder whether the little girl found the lamb, and I wonder whether the little girl got home safe. You can find out what happened to the little girl by reading the story.

Then should follow the assignment by the teacher: For tomorrow read *The Story of a Lost Lamb.* This silent reading of the selection is important because the pupils will get the new through the eye; that is, by silent reading, rather than through the ear by listening to the reading by the pupils.

Securing the Thought Content. The author has divided the story into six units. These may be subdivided into smaller units, depending largely on the number of separate pictures suggested by them.

One of the good readers should be called on to read the first unit. During this first reading the pupils of the class will listen to the oral reading by the pupil called on, and at the same time read silently what he is reading. At the close of the oral reading by the pupil the teacher should ask the pupils to find a heading for this unit. This should be placed on the blackboard. In addition to this the teacher will ask questions to bring out the essential thought. Other questions may be asked to clarify details, the key to the understanding of which is furnished by the pupil's fund of images. The teacher should also correct the pronunciation of words the pupil may have miscalled in his oral reading.

The work on the first unit closes when a pupil is called on to tell "How Flora Campbell looked and what she did." This constitutes the first rough summary of the unit.

Further Suggestions. Two methods of procedure are now open. The teacher may pass on to the next unit, handling that in a way similar to that used for the first unit, and so on until the entire story has been read, and headings found for each unit and a summary given of each unit. Or she may, after the summary of the first unit has been given, spend some time on the critical thought analysis and expressive reading. Either course can be defended on pedagogical grounds.

Perhaps on the whole it may be best for the teacher to move from unit to to unit, having each unit read, finding a heading for it, and having the substance of each unit given by the pupils. Naturally, if pupils experience any trouble in securing the thought content, the teacher should come to their assistance by means of questions and explanations.

Critical Reading and Analysis. After the first reading of the selection in this way, there should be taken up a more critical analysis of each unit. This critical analysis should call attention to the principal thought expressed in each unit, to the characterization of the personages in the story, and the beautiful expressions used by the author. It should bring out the inner and possibly hidden thoughts, and it should offer opportunities for the exercise of the ethical judgment of the pupils.

Unit I—Flora Campbell. What does the first sentence tell us about Flora Campbell? What is meant by "Her footsteps were light as a fairy's"? What does "Her heart was all sunshine" tell us about Flora? How could she talk to the birds, the brooks and the blossoms? What did she do at sunrise each morning?

There are several very pretty sentences in this unit. These should be committed to memory by the pupils. At the close of the thought analysis the expressive reading of the first unit should be taken up.

The teacher will find that pupils will

experience some trouble in reading the first sentence because of the uniform emphasis demanded on the words "dear little golden-haired Flora Campbell." What phrase suggests the manner in which the second sentence is to be read? What is the climax of this paragraph? Is it the sentence "Her heart was all sunshine," or is it, "Her thoughts were as pure and fresh as the flowers which she twined in her hair"?

Different pupils should be called on to read this paragraph expressively, but the teacher must also read it expressively again and again, so that the pupils may catch her spirit in rendering the paragraph.

The phrase, "singing among the hills," is suggestive of the happiness which should characterize the tone in which the first two lines in the second paragraph should be read. The last line should be read slowly. If thought suggests emphasis, should the adjectives, "kind," "good" and "fair" be emphasized? Why? There should follow now a drill on the expressive reading of this first unit.

As an assignment the pupils should do two things:

1. They should prepare themselves to tell the substance of the first unit.

2. They should practice the oral reading, if possible, at home.

The work on each succeeding unit, like on the first, should be of two kinds:

1. There should be a critical analysis to bring out hidden or deeper meaning of parts of the selection, and to call attention to beautiful expressions.

2. Attention should be paid to expressive reading, which necessitates devoting some time to securing proper phrasing and emphasis.

Unit II—Flora does not come home for supper. The introductory sentence, "It is evening among the hills," and the following ones in the third paragraph prepare us for a tragedy. Paragraph three suggests a picture. Pupils should be given time to allow their imagination to work out this picture.

The first question in paragraph four, "Where now is Flora Campbell?" is a general question. This question is repeated, but the second time there is much anxiety expressed. The second and third sentences of this paragraph form the setting for the second question. Pupils must, in their reading, bring out the difference between the two questions.

Try to picture the grandfather standing looking up to the hills, his lips moving in prayer. Does he love Flora?

The sixth paragraph pictures the mother standing by the window. Mother instinct tells her that her child is lost.

This is a difficult unit to read expressively, and it will be necessary for the teacher to come to the assistance of the pupils by reading parts of it or all of it expressively herself.

Unit III—The grandfather searches for Flora. This, too, is a difficult unit to read because of the many direct quotations. There was willingness on the part of the young men to go out to look for Flora. There is also confidence expressed in the declaration, "We must go out and find her at once." Was the old white-haired shepherd as hopeful as the young men? This should be brought out in the reading. Where should the emphasis be placed in the last sentence of the 11th paragraph? Why?

Unit IV—Flora is lost. Did the words of the village pastor, reassuring as they were, console the mother? Give the answer the pastor made to the mother's cry, "The child is lost! the child is lost!" Where was the father of Flora?

Unit V—The young men find Flora. What picture is suggested by paragraph 16? What by paragraph 17? Paragraphs 20 and 21? Describe how Flora was saved. What thought is suggested by the words the little girl spoke to Donald?

Unit VI—Flora's story. What made it possible for Flora to climb down to the bottom of the Deer's Mouth? Did she think it was a dangerous thing to do? Why did the village people insist on carrying Flora home? What in the last paragraph tells us how dearly the people of the village loved Flora? Was her father dead?

A teacher can well spend a week on *The Story of a Lost Lamb.* It is a selection replete with beautiful thoughts and pictures, and is well adapted to teach a phase of expressive reading which, while it demands the expression of beautiful thoughts and of much feeling, does not demand much volume.

Final Reproduction. It bears repetition, that the purpose the teacher should always bear in mind is to have children acquire power in getting thought from the printed page, and if the selection lends itself to expressive reading, to render the selection in an expressive way. For this reason in selections of this kind the teacher should, before the final test in expressive reading, require the pupils to tell the story in their own words.

The headings of the units will constitute the topical outline, and should be written on the blackboard. Since some of the units are quite comprehensive, it may be advisable to introduce subheads. An outline somewhat similar to the following may be worked out:

The Story of a Lost Lamb

1. Flora Campbell
    1. How she looked
    2. What she did
2. Flora does not come home for supper
    1. It is evening among the hills
    2. The grandfather's anxiety
    3. The mother's fear
3. The grandfather searches for Flora
    1. Where Flora was seen by the villagers
    2. The interest the young men took in Flora
    3. The white-haired old shepherd
4. Flora is lost
    1. The men look for Flora
    2. Gaffer Campbell says not a word
    3. The village pastor and Flora's mother
5. The young men find Flora
    1. The dog barking in Moss Glen
    2. They search the chasm known as "Deer's Mouth"
    3. They lower Donald into the chasm
    4. Donald finds Flora with the help of his dog
    5. The picture Donald saw by means of his torch
    6. What awoke Flora, and what she said
6. Flora's story of how she came to be at the bottom of "Deer's Mouth"
    1. She saw the lamb fall into the chasm
    2. How she followed. Her perilous climb
    3. How the villagers loved Flora

With the outline to refer to, pupils should give the thought of individual separate units or of the entire story. Then the story should be told without the aid of the outline.

The telling of the story not only discloses to the teacher whether the pupils have the thought, but the naturalness in telling the story assures naturalness in reading the story.

Final Expressive Reading. There really is no "final" expressive reading of the story. What is meant is that when the work which may be called preparatory, is finished, pupils should be able to do two things and do them well:

1. To tell the story as indicated above, and
2. To read it expressively.

An entire recitation period should be devoted to the expressive reading, and then this story, together with others, may be held in reserve for "Expressive Reading Days," as previously described.

Language Exercises Based on the Selection. If the work on the selection, *The Story of a Lost Lamb,* has been done as outlined, it will furnish much valuable material for language exercises. The pupils are thoroughly at home with the thought content and the form in which it is presented. With both content and form in the possession of the pupils, they are ready to write on any unit of the story the teacher may desig-

nate. However, it is suggested that all pupils be required to write on the first unit, and it might be well to have them commit to memory the third paragraph. The only preliminary exercises that need be introduced are drill exercises in spelling, and in committing to memory pretty sentences like the following:

Her footsteps were light as a fairy's, her cheeks were like the June roses.
Her heart was all sunshine.
One by one the stars are seen in the sky.
The last light of day fades away on the mountain.
He could not weep, his heart was too full.
He who takes care of the lambs in the winter storm, will take care of your child.
When he looked down there was only darkness.

The written exercises need not be limited to mere reproductions. The following topics, which call for some original work, may be suggestive:

1. Tell the story of the rescue of Flora as it might have been told by Donald, using the pronoun "I."

2. Tell the story of the rescue as told by one of the men, using the pronoun "we."

3. Tell the story of the day as Flora might have told it, using the pronoun "I."

The Sandpiper

To arouse an interest in the poem, the teacher should tell the class how Celia Thaxter, the author of the poem, when a little child, lived with her parents in a lighthouse that was situated on a lonely island; how she loved the ocean in its varied moods, and understood the language of the winds; how she loved the sea gulls and the little sandpipers; how close an observer of nature she was; and how the poem depicts a day out of her childhood. If possible the teacher should show the class a picture of a sandpiper.

How the Poem Should Be Read. Throughout the poem there is present the suggestion of a bond of sympathy and good fellowship between the little girl and the little sandpiper. This should be brought out clearly by the thought analysis. It is suggested that the teacher read the entire poem expressively to the class before introducing the thought analysis. This will help the children to approach the study with sympathy.

Across the lonely beach we flit,
  One little sandpiper and I;
And fast I gather, bit by bit,
  The scattered driftwood bleached and dry,
The wild waves reach their hands for it,
  The wild wind raves, the tide runs high,
As up and down the beach we flit—
  One little sandpiper and I.

In the opening lines of the poem, the little girl introduces herself and the sandpiper in a simple, childlike manner. In the reading of these first two lines, the teacher should therefore strike the note of simplicity. The next two lines should be read more rapidly. In the reading of the fifth and sixth lines the teacher should introduce a slight tone of awe. The last two lines should be read in an easy, graceful manner, bringing out the rhythm. If the descriptive word "lonely" and the action word "flit" are expressively spoken, and if the word "fast" is given the right emphasis, and "bit by bit," read in a suggestive way, the picture the children should be able to describe will be somewhat as follows:

There is a lonely beach on which driftwood lies scattered, which has become bleached and dry. The wild wind is raving; the wild waves are coming up close to the driftwood, almost within reach of it. A little girl and a sandpiper are seen flitting up and down the beach, the little girl collecting the driftwood as fast as she can before the tide runs high, while the sandpiper is looking for food.

If necessary, the teacher may put a few questions to the class to bring out the above picture.

Above our heads the sullen clouds,
Scud black and swift across the sky;
Like silent ghosts in misty shrouds
Stand out the white lighthouses high.
Almost as far as eye can reach
I see the close-reefed vessels fly,
As fast we flit along the beach—
One little sandpiper and I.

The teacher should read the first six lines of this stanza with the same suggestion of feeling in her voice that she introduced into the reading of the fifth and sixth lines of the first stanza, and in a manner that will suggest to the children that a storm is impending. The last two lines should be read exactly as the last two lines in the first stanza. This will emphasize the music of these lines. The picture suggested by this stanza, being descriptive in character, will be a little more difficult for the children to get. It may be necessary to ask questions like the following:

What causes the clouds to "move swiftly" or "scud" across the sky? If the word "scud" is not in the child's vocabulary, here is a good chance to put it there. Why are the clouds spoken of as sullen? What is a lighthouse? What made the lighthouses look like "silent ghosts in misty shrouds?" Have you ever seen a ship with its sails spread out full? Have you seen one with its sails close-reefed? Describe the position of the sails in each instance. What causes the vessels to seem to fly?

I watch him as he skims along,
Uttering his sweet and mournful cry;
He starts not at my fitful song,
Nor flash of fluttering drapery.
He has no thought of any wrong;
He scans me with a fearless eye;
Stanch friends are we, well tried and strong,
The little sandpiper and I.

In this stanza little Celia tells us of the relation between herself and the sandpiper, and it should, therefore, be read in an easy conversational tone. The teacher, by her reading, can convey to the class the meaning of "skims," "fitful," "flash of fluttering drapery," "scans," "stanch," "well tried and strong." If necessary, the meaning of these words should be discussed after the teacher has read the stanza.

The third, fourth and fifth lines should be read in the same tone of voice and with the same emphasis. There should be a change in the reading of the sixth line. The third, fourth and fifth lines tell us what the sandpiper does not do, but the sixth line tells us what he does do and therefore requires a different tone and emphasis. The little girl pronounces the word "stanch" with a good deal of sincerity. This should appear in the reading of it. In the reading of the last line, the rhythm should be brought out as in the last two lines of the first and second stanzas.

The picture suggested by this stanza is an easy one for the children to see. They should be asked to describe it.

Comrade, where wilt thou be tonight,
When the loosed storm breaks furiously?
My driftwood fire will burn so bright;
To what warm shelter canst thou fly?
I do not fear for thee, though wroth
The tempest rushes through the sky;
For are we not God's children both,
Thou, little sandpiper, and I?

The teacher should read this stanza in such a way as to bring out the tone of sweet solicitude with which the little girl addresses her "comrade;" the tone of reflection, when she thinks of her bright driftwood fire; the tone of faith with which she assures the sandpiper that she does not fear for him because he, too, is one of God's children; the tone of love, with which she addresses him in the last line, the reading of which should become slower and sweeter.

This stanza deals with what we may

consider the thought of an adult expressed by a little girl, and in order to get the children to understand and appreciate it, it may be necessary to ask questions like the following:

Does the little girl know there will be a great storm during the night? What makes her think so? What is meant by "the loosed storm breaks furiously"? Is she afraid of the storm? What is meant by "wroth the tempest rushes through the sky"? Does she fear for her little friend? Why not?

The children should practice reading the poem until the teacher is satisfied that they bring out vividly the pictures, thoughts and feelings suggested by it.

Trailing Arbutus

I wandered lonely where the pine trees made
Against the bitter east their barricade.
And, guided by its sweet
Perfume, I found, within a narrow dell,
The trailing spring flower tinted like a shell,
Amid dry leaves and mosses at my feet.

From under dead boughs, for whose loss the pines
Moaned ceaseless overhead, the blossoming vines
Lifted their glad surprise.
While yet the blue bird smoothed in leafless trees,
His feathers ruffled by the chill sea breeze,
And snow drifts lingered under April skies.

—*Whittier.*

The teacher should read the poem expressively to the class and call attention to the music and the rhythm. The thought analysis should then follow to get the pupils to see clearly the pictures suggested by the poem, to the end that their reading may reflect their own thoughts and feelings. Questions like the following may be used:

What is the sea breeze that Whittier refers to? What is meant by "barricade"? How was the wanderer guided to the little arbutus? Why is the idea of "moaning" associated with pine trees? Describe the blue bird as suggested by the second stanza. Describe the surroundings of the arbutus. What message, do you suppose, did the beautiful little flower have for the lonely wanderer? Why do you like the poem?

While the thought analysis is proceeding, pupils may be called on to read orally a few lines at a time, and if they do not read with sufficient expression further questions may be necessary.

When the poem has been worked over as suggested, it may be advisable for the teacher to encourage pupils to abandon themselves to the selection and respond to its beautiful thoughts and music, by picturing to the class the background somewhat as follows:

Imagine yourself to be in the place of the lonely wanderer. Picture to yourself the barricade of moaning pine trees overhead and the dry leaves and mosses at your feet. Now, guided by the sweet perfume of the arbutus, imagine yourself entering a narrow dell and finding the little flower at your feet.

Pupils should then be asked to read the poem silently and then as expressively as they can. Finally it should be committed to memory.

The Uprising—1775

Out of the North the wild news came,
Far flashing on its wings of flame,
Swift as the boreal light which flies
At midnight through the startled skies.
And there was tumult in the air,
The fife's shrill note, the drum's loud beat,
And through the wide land everywhere
The answering tread of hurrying feet,
While the first oath of Freedom's gun
Came on the blast from Lexington;

And Concord, roused, no longer tame,
Forgot her old baptismal name,
Made bare her patriot arm of power,
And swelled the discord of the hour.
Within its shades of elm and oak
The church of Berkeley Manor stood:
There Sunday found the rural folk,
And some esteemed of gentle blood.
In vain their feet with loitering tread
Passed mid the graves where rank is naught;
All could not read the lesson taught
In that republic of the dead.

The pastor rose: the prayer was strong;
The psalm was Warrior David's song;
The text a few short words of might—
"The Lord of hosts shall arm the right!"
He spoke of wrongs too long endured,
Of sacred rights to be secured;
Then from his patriot tongue of flame
The startling words for Freedom came,
The stirring sentences he spake
Compelled the heart to glow or quake;
And, rising on his theme's broad wing,
And grasping in his nervous hand
The imaginary battle brand,
In face of death he dared to fling
Defiance to a tyrant king.
Even as he spoke, his frame, renewed
In eloquence of attitude,
Rose, as it seemed, a shoulder higher;
Then swept his kindling glance of fire
From startled pew to breathless choir;
When suddenly his mantle wide
His hands impatient flung aside,
And lo! he met their wondering eyes
Complete in all a warrior's guise.
A moment there was awful pause—
When Berkeley cried, "Cease, traitor! cease!
God's temple is the house of peace!"
The other shouted, "Nay, not so,
When God is with our righteous cause:
His holiest places then are ours,
His temples are our forts and towers
That frown upon a tyrant foe:
In this the dawn of Freedom's day
There is a time to fight and pray!"

And now before the open door—
The warrior priest had ordered so—
The enlisting trumpet's sudden roar
Rang through the chapel o'er and o'er.
Its long reverberating blow,
So loud and clear it seemed the ear
Of dusty death must wake and hear.
And then the startling drum and fife
Fired the living with fiercer life;
While overhead with wild increase,
Forgetting its ancient toll of peace,
The great bell swung as ne'er before:
It seemed as it would never cease;
And every word its ardor flung
From off its jubilant iron tongue
Was, "War! War! War!"

"Who dares"—this was the patriot's cry,
As striding from the desk he came—
"Come out with me in Freedom's name,
For her to live, for her to die?"
A hundred hands flung up reply,
A hundred voices answered "I!"

General Preparation. This poem can best be used with a class that is familiar with the events in history which serve as a background for it, and which are essential to a thorough appreciation of it. In the preparatory discussion, the historical "Rising of 1775" should be reviewed. The pupils should realize that

after the policy of conciliation had failed in England, General Gage planned to destroy the ammunition stored at Concord, that Paul Revere in his famous ride aroused the minutemen of village and farm; that at Lexington and Concord and on the retreat to Boston the "embattled farmers" showed that they could attack and defeat veteran English troops; and that the effect of this "glorious day" on the people showed itself by the appearance within a short time, of over 16,000 minutemen ready to drive the British from Boston. A map of the United States should be used in connection with the study of the historical events suggested by the poem.

Reading of the Poem by Teacher. After this preparatory discussion, the teacher should read the entire poem to the class. To do this well the teacher must appreciate the patriotism and love for liberty that showed itself in the young minister's successful effort in inducing the members of his congregation to enlist in the war and to help their brethren in the North.

Thought Analysis. The expressive reading by the teacher should be followed by a critical analysis of the poem. This should result in a thorough appreciation of the thought and feeling which will enable the pupils to read the poem expressively.

After pupils have read the first stanza silently questions like the following should be considered:

What was the "wild news" referred to in the first line? Why "wild news," and how could the news come on "wings of flame"? What is meant by "boreal light"?

After this analysis pupils should read the first four lines expressively. In reading the first stanza it may be necessary to help pupils in securing the proper phrasing. The thought suggests rhetorical pauses after each of the words, "North," "came," "flashing," "flame," "swift," "light," "midnight" and "skies." Unless pupils thoroughly appreciate the fact that the words "which flies at midnight" constitute a unit, they are apt to make a pause after the word "flies," which would destroy the naturalness of the lines. In spite of the careful thought analysis, it will probably be necessary for the teacher to read the first stanza several times to arouse the pupils and thus lead them to put forth their best efforts.

The first step in the study of the next stanza should be the silent reading of it by the pupils.

Suggestive Questions. Describe the picture suggested by the first ten lines of the second stanza; the picture suggested by the last four lines. It will probably be necessary for the teacher to make clear that the first and second stanzas suggest what was going on in most of the colonies, and especially in New England, as a preparation for the coming struggle. Why "first oath of Freedom's gun"? What does the word "Concord" mean? What does line 12 mean?

Now should come the expressive reading of the second stanza. Again it is suggested that the teacher and pupils must work together in securing the end sought. How should the fifth line be read? Why the emphasis on "tumult"? The words in the sixth line should be read in such a way that they may suggest the sound of the fife and drum. Why should "everywhere" be read slowly, yet with considerable volume? The expressive reading of this stanza should bring out clearly the climax of the first six lines and that of the last four lines. It may be necessary to give a rhetorical drill on the important words in this stanza.

Formal Assignment. Probably this is all that the teacher can accomplish in one day. In the formal assignment the pupils should be urged to read these two stanzas several times aloud at home as a preparation for the next day's recitation. The teacher should urge her pupils in their home reading to abandon

themselves to the thoughts and feelings of the selection to the end that they may read the stanzas in a spirited way.

The Second Day. The first part of the recitation period should be devoted to the expressive reading of the first 14 lines. The best readers should be called on first. A great effort must be made by the teacher to have pupils get rid of their timidity so that they will throw their whole soul into the reading. To inspire pupils to do their best it may be necessary for the teacher to read these lines expressively a few times during the recitation.

Pupils should read the next eight lines silently. The contrast between the picture suggested by these lines and the preceding stanzas should be brought out. What is the meaning of the 21st and 22d lines?

Pupils should then be called on to read these lines expressively. Then a part of the preceding stanza should be read, together with the lines just studied, to bring out the contrast referred to.

Pupils should be asked to practice the oral reading of these parts of the poem at home.

The Third Day. The parts of the poem that have been studied should be read expressively, in class. Most of the time, however, should be devoted to the thought analysis of the lines 23 to 46 inclusive.

To whom does the 23rd line introduce us? Do you know the psalm referred to? Why, do you suppose, the pastor chose the words in the 26th line for his text? What were some of the wrongs he referred to? The sacred rights to be secured? What thought is suggested by line 33? What is the significance of the 36th and 37th lines? What effect had his "kindling glance of fire" on his congregation? Explain the four lines from 43 to 46. What do they suggest as to the minister's own patriotism and courage? Was he willing to do what he was about to ask members of his congregation to do? Pupils should read lines 23 to 46 expressively.

The 47th line suggests a rhetorical pause after the 46th line. Who, do you suppose, was Berkeley? Put yourself in Berkeley the Tory's place, and then read the three lines that follow line 46. Imagine yourself the preacher and read his reply. Berkeley was angry, the minister justly indignant, and actuated by a noble and patriotic purpose. Two of the best readers should be selected, one to read Berkeley's declaration, the other the minister's reply.

The assignment for the next day should call for oral reading at home of the parts of the poem thus far studied in class, and if there is a study period for reading in school, pupils may be required to study the rest of the poem, basing their work on questions like these:

Why, do you suppose, did the minister arrange to have the trumpet, drum and fife sounded just when he did? How could these musical instruments "fire the living with fiercer life"? What word in the 71st line suggests how the next line should be rendered? Read lines 70 to 72 and put the same ardor into your reading that the sexton put into the ringing of his bell. However, save your voice for the grand climax of the poem, which is contained in the last six lines. Be careful not to include explanatory words and phrases in this climax. Your reading must make the climax stand out clear and strong. If you bear in mind that a hundred voices answered "I," how much volume must your reading suggest in pronouncing "I"?

Expressive Reading. This completes the formal work on the poem, but the next day and each succeeding day for several weeks a part of each day should be devoted to the expressive reading of this beautiful poem. If this is done it will be found that pupils will have learned more by the study and reading of this one selection than they have by the reading of a dozen selections that did not call for the kind of effort this patriotic, soul-inspiring poem demands.

Address delivered at the dedication of the Cemetery at Gettysburg.

Four score and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.

Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battle-field of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.

But, in a larger sense, we can not dedicate — we can not consecrate — we can not hallow — this ground. The brave men, living and dead, who struggled here have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us — that

from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people, for the people, shall not perish from the earth.

Abraham Lincoln

November 19, 1863.

THOUGHT ANALYSIS

A great writer has said, "For its quiet depth of feeling and solemn beauty of expression this speech is rightly regarded as one of the great masterpieces of English prose." It is well for the teacher to have in mind the thought in the above sentence while conducting the thought analysis of the address.

First Paragraph. Why was the Battle of Gettysburg of such importance?

What authority is there for the declaration that the fathers of our nation dedicated it to the proposition "that all men are created equal"? This phrase is used in the Declaration of Independence. Find it.

Why, do you suppose, did Lincoln prefer the expression "Fourscore and seven years ago," to "Eighty-seven years ago"?

Second Paragraph. What was the real purpose of the Civil War? In August, 1862, President Lincoln wrote, "If I could save the Union without freeing any slave, I would do it; if I could save the Union by freeing all the slaves, I would do it. . . . . Whatever I do about slavery and the colored race, I do because I believe it helps save the Union." Was this written before or after Lincoln issued his Emancipation Proclamation? What light does this quotation throw on Lincoln's attitude toward the South and slavery?

Third Paraprapgh. Define "dedicate," "consecrate," and "hallow." Why did Lincoln use the words in this order? What is the meaning and force of "in a larger sense"?

What does the second sentence mean? Was Lincoln right or wrong in his prophecy as contained in the third sentence?

What cause is referred to in the fourth sentence? What is meant by "last full measure of devotion"? What is the force of "under God"? What is meant by "a new birth of freedom"? What is the force of the phrases "of the people," "by the people" and "for the people"? Had there been republics in the world before ours was conceived? Is there any danger that government of

the people, by the people and for the people may disappear in this country? If so, how can popular, common education help to avert such a catastrophe?

Explain how the simplicity of the language used by Lincoln increases the force and effectiveness of the address.

Read and reread the address expressively and then commit it to memory.

A Portion of Irving's *Rip Van Winkle.*

Whoever has made a voyage up the Hudson, must remember the Catskill Mountains. They are a dismembered branch of the great Appalachian family, and are seen away to the west of the river, swelling up to a noble height, and lording it over the surrounding country. Every change of season, every change of weather, indeed every hour of the day, produces some change in the magical hues and shapes of these mountains; and they are regarded by all the good wives, far and near, as perfect barometers. When the weather is fair and settled, they are clothed in blue and purple, and print their bold outlines on the clear evening sky, but sometimes, when the rest of the landscape is cloudless, they will gather a hood of gray vapors about their summits, which, in the last rays of the setting sun, will glow and light up like a crown of glory.

Why are the Catskill Mountains called a "dismembered branch" of the Appalachian family? Use your geographies in determining the reason. Why did Irving introduce the word "away" in the second sentence? What change does it make in the picture? Consult your maps again. What is meant by "they are regarded as perfect barometers"? What is the force of "far and near"? Have you ever seen hills "print their outlines on the clear evening sky"? Describe what you saw. What is meant by a "hood of gray vapors"? Read the last sentence carefully and then describe the picture which it suggests.

At the foot of these fairy mountains, the voyager may have described the light smoke curling up from a village, whose shingle-roofs gleam among trees, just where the blue tints of the upland melt away into the fresh green of the nearer landscape. It is a little village, of great antiquity, having been founded by some of the Dutch colonists, in the early times of the province, just about the beginning of the government of the good Peter Stuyvesant, (may he rest in peace!) and there were some of the houses of the original settlers standing within a few years, built of small yellow bricks brought from Holland, having latticed windows and gable fronts, surmounted with weather-cocks.

Substitute a word for "described." When was New Amsterdam founded? Who was Peter Stuyvesant? Why do you suppose Irving throws in the phrase, "may he rest in peace"? What are "latticed windows" and "gable fronts"? Describe the village as pictured in this paragraph.

In that same village, and in one of these very houses (which to tell the precise truth, was sadly time-worn and weather-beaten), there lived many years since, while the country was yet a province of Great Britain, a simple, good-natured fellow, of the name of Rip Van Winkle. He was a descendant of the Van Winkles who figured so gallantly in the chivalrous days of Peter Stuyvesant and accompanied him to the siege of Fort Christina. He inherited, however, but little of the martial character of his ancestors.

The first two paragraphs constitute the setting for the description of Rip Van Winkle. Point out some expressions which suggest that Irving is treating his subject in a half-humorous, half-serious way. What effect does he wish to produce on his readers by the use of the word "very"? Were the days of Peter Stuyvesant really "chivalrous days"? Was the so-called siege of Fort Christina a memorable one? What does the last sentence mean?

I have observed that he was a simple, good-natured man; he was, moreover, a kind neighbor, and an obedient henpecked husband. Indeed, to the latter circumstance might be owing that meekness of spirit which gained him such universal popularity; for those men are most apt to be obsequious and conciliating abroad, who are under the discipline of shrews at home. Their tempers, doubtless, are rendered pliant and malleable in the fiery furnace of domestic tribulation, and a curtain lecture is worth all the sermons in the world for teaching the virtues of patience and long-suffering. A termagant wife, may, therefore, in some respects, be considered a tolerable blessing; and if so, Rip Van Winkle was thrice blessed.

Select the adjectives that help to give us an idea of Rip Van Winkle's personality. What is meant by "obsequious" and "conciliating"? "Termagant wife"? Describe the humor suggested by the words "thrice blessed."

Certain it is, that he was a great favorite among all the good wives of the village, who, as usual with the amiable sex, took his part in all family squabbles; and never failed, whenever they talked those matters over in their evening gossipings, to lay all the blame on Dame Van Winkle. The children of the village, too, would shout with joy whenever he approached. He assisted at their sports, made their playthings, taught them to fly kites and shoot marbles, and told them long stories of ghosts, witches, and Indians. Whenever he went dodging about the village, he was surrounded by a troop of them hanging on his skirts, clambering on his back, and playing a thousand tricks on him with impunity; and not a dog would bark at him throughout the neighborhood.

Why did the women and children like Rip? Did the women really respect him? Why did he go "dodging" about the village? What idea does Irving desire to convey by the part of the last sentence after the semicolon?

The great error in Rip's composition was an insuperable aversion to all kinds of profitable labor. It could not be from the want of assiduity or perseverance; for he would sit on a wet rock, with a rod as long and heavy as a Tartar's lance, and fish all day without a murmur, even though he should not be encouraged by a single nibble. He would carry a fowling piece on his shoulder for hours together, trudging through woods and swamps, and up hill and down dale, to shoot a few squirrels or wild pigeons. He would never refuse to assist a neighbor, even in the roughest toil, and was a foremost man at all country frolics for husking Indian corn or building stone fences. The women of the village, too, used to employ him to run their errands, and to do such little odd jobs as their less obliging husbands would not do for them. In a word, Rip was ready to attend to anybody's business but his own; but as to doing family duty, and keeping his farm in order, he found it impossible.

What does the first sentence mean? Why do you suppose Irving used such "big" words in expressing the thought he had in mind? What is the meaning of "assiduity," "perseverance"? What idea as to Rip's willingness to work does the author seem to convey in this paragraph? Does he mean it? Did Rip really help his neighbors? What does the last sentence suggest to you?

Why do you like the selection? Point out some of the touches of pathos and humor that particularly appeal to you. Find out all you can about Irving's style as a writer and be ready to report on it in class.

A Selection from Longfellow's *Evangeline*

1 This is the forest primeval. The murmuring pines and the hemlocks,

2 Bearded with moss, and in garments green, indistinct in the twilight,
3 Stand like Druids of eld, with voices sad and prophetic,
4 Stand like harpers hoar, with beards that rest on their bosoms.
5 Loud from its rocky caverns, the deep-voiced neighboring ocean
6 Speaks, and in accents disconsolate answers the wail of the forest.

Who were the Acadians? Describe their expulsion from their country by the English. Read the selection in its entirety and name the successive pictures suggested to you.

What is meant by "the forest primeval"? Show that "murmuring" and "bearded" are used appropriately. What is meant by the "Druids of Eld"? What words in the third line prepare us for a tragedy?

Describe the picture of the "forest primeval" as it appears to you. What is meant by "rocky caverns of the ocean"? "The deep voiced ocean"? Add to your picture of the forest primeval that of the neighboring ocean. How does that intensify the somberness of the picture?

7 This is the forest primeval; but where are the hearts that beneath it
8 Leaped like the roe, when he hears in the woodland the voice of the huntsman?
9 Where is the thatch-roofed village, the home of Acadian Farmers,—
10 Men whose lives glided on like rivers that water the woodlands,
11 Darkened by shadows of earth, but reflecting an image of heaven?
12 Waste are those pleasant farms, and the farmers forever departed!
13 Scattered like dust and leaves, when the mighty blasts of October
14 Seize them, and whirl them aloft, and sprinkle them far o'er the ocean.
15 Naught but tradition remains of the beautiful village of Grand-Pré.

What picture is suggested by "thatch-roofed village"? What is meant by "Darkened by shadows of earth but reflecting an image of heaven"? Contrast the picture suggested by the last four lines with that suggested by the first five lines. How does the author bring out the contrast? How did he prepare us for it? Describe the two pictures suggested by the above.

16 Ye who believe in affection that hopes, and endures, and is patient,
17 Ye who believe in the beauty and strength of woman's devotion,
18 List to the mournful tradition still sung by the pines of the forest;
19 List to a Tale of Love in Acadia, home of the happy.

In line 17 what tribute does the poet pay to woman? Read aloud the last two lines of the prelude. What constitutes the musical element here? Why do you like the idea of the "mournful tradition" being sung by the pines? Learn to read expressively the entire prelude and then commit it to memory.

Part the First

20 In the Acadian land, on the shores of the Basin of Minas,
21 Distant, secluded, still, the little village of Grand-Pré.
22 Lay in the fruitful valley. Vast meadows stretched to the eastward,
23 Giving the village its name, and pasture to flocks without number.
24 Dikes, that the hands of the farmers had raised with labor incessant,
25 Shut out the turbulent tides; but at stated seasons the flood-gates
26 Opened and welcomed the sea to wander at will o'er the meadows.
27 West and south there were fields of flax, and orchards and cornfields
28 Spreading afar and unfenced o'er the plain; and away to the northward
29 Blomidon rose, and the forest old, and aloft on the mountains

30 Sea-fogs pitched their tents, and mists from the mighty Atlantic
31 Looked on the happy valley, but ne'er from their station descended.

Where is the Basin of Minas? Where was Grand-Pré located? What is meant by "turbulent tides"? "Flood gates"? "Welcoming the sea to wander at will o'er the meadows"? What is meant by "sea fogs pitched their tents"? Describe the surroundings of the village of Grand-Pré.

32 There, in the midst of its farms, reposed the Acadian village.
33 Strongly built were the houses, with frames of oak and of hemlock,
34 Such as the peasants of Normandy built in the reign of the Henries.
35 Thatched were the roofs, with dormer windows; and gables projecting
36 Over the basement below protected and shaded the doorway.

Where is Normandy? Why did the Acadians build houses like those built by the peasants of Normandy? Describe the dormer windows. What is meant by "gables"? Describe an Acadian house.

37 There in the tranquil evenings of summer, when brightly the sunset
38 Lighted the village street, and gilded the vanes on the chimneys,
39 Matrons and maidens sat in snow-white caps and in kirtles
40 Scarlet and blue and green, with distaffs spinning the golden
41 Flax for the gossiping looms, whose noisy shuttles within doors
42 Mingled their sound with the whir of the wheels and songs of the maidens.
43 Solemnly down the street came the parish priest, and the children
44 Paused in their play to kiss the hand he extended to bless them.
45 Reverend walked he among them; and up rose matrons and maidens,
46 Hailing his slow approach with words of affectionate welcome.
47 Then came the laborers home from the field, and serenely the sun sank
48 Down to his rest, and twilight prevailed. Anon from the belfry
49 Softly the Angelus sounded, and over the roofs of the village
50 Columns of pale blue smoke, like clouds of incense ascending,
51 Rose from a hundred hearths, the homes of peace and contentment.
52 Thus dwelt together in love these simple Acadian farmers,—
53 Dwelt in the love of God and of man. Alike were they free from
54 Fear, that reigns with the tyrant, and envy, the vice of republics.
55 Neither locks had they to their doors, nor bars to their windows;
56 But their dwellings were open as day and the hearts of the owners;
57 There the richest was poor, and the poorest lived in abundance.

What is meant by "tranquil evenings of summer"? What are "vanes"? "Kirtles"? "Distaffs"? "Looms"? "Shuttles"? What does "twilight prevailed" mean? Read beginning with the 37th line to "twilight prevailed" in the 48th line. Describe the sunset and what it did. Describe the dress of the matrons and maidens, and tell what they were doing. Picture the children at play.

Describe the village priest and tell what happened when he came along the village street.

What is meant by the "Angelus"? What did the people do when they heard the Angelus? What is meant by "clouds of incense"? What does the last line tell us?

Sum up the characteristics of an Acadian village and its people.

58 Somewhat apart from the village, and nearer the Basin of Minas,
59 Benedict Bellefontaine, the wealthiest farmer of Grand-Pré.
60 Dwelt on his goodly acres; and with him, directing his household,
61 Gentle Evangeline lived, his child, and the pride of the village.

62 Stalwart and stately in form was
the man of seventy winters;
63 Hearty and hale was he, an oak that
is covered with snow-flakes;
64 White as the snow were his locks,
and his cheeks as brown as the
oak-leaves.
65 Fair was she to behold, that maiden
of seventeen summers;
66 Black were her eyes as the berry
that grows on the thorn by the
wayside,
67 Black, yet how softly they gleamed
beneath the brown shade of her
tresses!
68 Sweet was her breath as the breath
of kine that feed in the meadows.
69 When in the harvest heat she bore
to the reapers at noontide
70 Flagons of home-brewed ale, ah!
fair in sooth was the maiden.
71 Fairer was she when, on Sunday
morn, while the bell from its
turret
72 Sprinkled with holy sounds the air,
as the priest with his hyssop
73 Sprinkles the congregation, and
scatters blessings upon them,
74 Down the long street she passed,
with her chaplet of beads and
her missal,
75 Wearing her Norman cap and her
kirtle of blue, and the ear-rings
76 Brought in the olden time from
France, and since, as an heirloom,
77 Handed down from mother to child,
through long generations.
78 But a celestial brightness—a more
ethereal beauty—
79 Shone on her face and encircled
her form, when, after confession,
80 Homeward serenely she walked
with God's benediction upon her.
81 When she had passed, it seemed
like the ceasing of exquisite
music.

Read from line 58 to 64 inclusive. What is meant by "goodly acres"? What is the effect of the alliteration in lines 62 and 63? Why is the comparison of Benedict Bellefontaine to an oak covered with snow-flakes a good one?

Describe Benedict Bellefontaine. What is meant by "hyssop"? "A chaplet of beads"? "Missal"?

Read from line 78 to 81 inclusive. What is meant by "celestial brightness"? "Ethereal beauty"?

Describe Evangeline as she appeared walking homeward after confession.

82 Firmly builded with rafters of oak,
the house of the farmer
83 Stood on the side of a hill com-
manding the sea; and a shady
84 Sycamore grew by the door, with a
woodbine wreathing around it.
85 Rudely carved was the porch, with
seats beneath; and a footpath
86 Led through an orchard wide, and
disappeared in the meadow.
87 Under the sycamore-tree were hives
overhung by a penthouse,
88 Such as the traveller sees in regions
remote by the roadside,
89 Built o'er a box for the poor, or the
blessed image of Mary.
90 Farther down, on the slope of the
hill, was the well with its moss-
grown
91 Bucket, fastened with iron, and
near it a trough for the horses.
92 Shielding the house from storms, on
the north, were the barns and the
farm-yard;
93 There stood the broad-wheeled
wains and the antique ploughs
and the harrows;
94 There were the folds for the sheep;
and there, in his feathered
seraglio,
95 Strutted the lordly turkey, and
crowed the cock, with the self-
same
96 Voice that in ages of old had
startled the penitent Peter.
97 Bursting with hay were the barns,
themselves a village. In each one
98 Far o'er the gable projected a roof
of thatch; and a staircase,
99 Under the sheltering eaves, led up
to the odorous corn-loft.
100 There too the dove-cot stood, with
its meek and innocent inmates

101 Murmuring ever of love; while above in the variant breezes,
102 Numberless noisy weathercocks rattled and sang of mutation.

What does "barns bursting with hay" mean? This fact together with the fact that the barns themselves formed a village is significant of what? What does "odorous" mean? What are some of the virtues ascribed by poets to the little "dove"? What does the last line mean? Describe the farmhouse. Describe the well and the barns. Describe the entire picture suggested by the above.

103 Thus, at peace with God and the world, the farmer of Grand-Pré
104 Lived on his sunny farm, and Evangeline governed his household.
105 Many a youth, as he knelt in the church and opened his missal,
106 Fixed his eyes upon her as the saint of his deepest devotion;
107 Happy was he who might touch her hand or the hem of her garment!
108 Many a suitor came to her door, by the darkness befriended,
109 And, as he knocked and waited to hear the sound of her footsteps,
110 Knew not which beat the louder, his heart or the knocker of iron;
111 Or, at the joyous feast of the Patron Saint of the village,
112 Bolder grew, and pressed her hand in the dance as he whispered
113 Hurried words of love, that seemed a part of the music.
114 But among all who came young Gabriel only was welcome.
115 Gabriel Lajeunesse, the son of Basil the blacksmith,
116 Who was a mighty man in the village, and the honored of all men;
117 For since the birth of time, throughout all ages and nations,
118 Has the craft of the smith been held in repute by the people.
119 Basil was Benedict's friend. Their children from earliest childhood
120 Grew up together as brother and sister; and Father Felician,
121 Priest and pedagogue both in the village, had taught them their letters
122 Out of the selfsame book, with the hymns of the church and the plainsong,
123 But when the hymn was sung, and the daily lesson completed,
124 Swiftly they hurried away to the forge of Basil the blacksmith.
125 There at the door they stood, with wondering eyes to behold him
126 Take in his leathern lap the hoof of the horse as a plaything,
127 Nailing the shoe in its place; while near him the tire of the cartwheel
128 Lay like a fiery snake, coiled round in a circle of cinders.
129 Oft on autumnal eves, when without in the gathering darkness
130 Bursting with light seemed the smithy, through every cranny and crevice,
131 Warm by the forge within they watched the laboring bellows.
132 And as its panting ceased, and the sparks expired in the ashes,
133 Merrily laughed, and said they were nuns going into the chapel.
134 Oft on sledges in winter, as swift as the swoop of the eagle,
135 Down the hillside bounding, they glided away o'er the meadow,
136 Oft in the barns they climbed to the populous nests on the rafters,
137 Seeking with eager eyes that wondrous stone, which the swallow
138 Brings from the shore of the sea to restore the sight of its fledglings;
139 Lucky was he who found that stone in the nest of the swallow!
140 Thus passed a few swift years, and they no longer were children.
141 He was a valiant youth, and his face, like the face of the morning,
142 Gladdened the earth with its light, and ripened thought into action.
143 She was a woman now, with the heart and hopes of a woman.
144 "Sunshine of Saint Eulalie" was she called; for that was the sunshine
145 Which, as the farmers believed,

would load their orchards with apples;
146 She too would bring to her husband's house delight and abundance,
147 Filling it with love and the ruddy faces of children.

What is the meaning of "sunny farm" in line 104? What does "by the darkness befriended" mean, in line 108? What is meant by the "joyous feast of the Patron Saint of the village" in line 111? Why was Basil the blacksmith honored of all men? Describe Basil the blacksmith. How came it that in this village of Grand-Pré the priest was also the pedagogue?

Describe Evangeline and Gabriel at school.

Describe what they saw at the forge of Basil the blacksmith.

Describe their sports in winter.

Tell how they climbed to the populous nests on the rafters and why.

Describe Gabriel and Evangeline when they had grown to manhood and womanhood.

At the Open Chapel

A young physician was fond of taking long walks in unfrequented places. At one time while passing through a dense forest near a cloister he was overtaken by darkness. Just as he was about to turn back there were wafted toward him the exquisite notes of a beautiful song. For a moment he stopped and reverently listened.

Then walking in the direction whence the tones appeared to come he perceived a light faintly glimmering through the dark foliage of the trees. Soon his gaze rested on a pathetically beautiful scene.

Before him was an open chapel, on the altar wall of which was the picture of the Madonna, painted in living colors. Under the picture flowed a tiny silvery stream, which issued from the mouth of an artistically carved lion's head. A lamp, suspended from the ceiling by means of a chain, illumined the interior of the medieval chapel and threw its mellow light on two people who were kneeling before the holy picture and singing a psalm. The one was a frail young girl whose dress, though neat and clean, suggested extreme poverty; the other an old blind peasant whose sightless eyes were raised toward the picture of the Virgin. The deep shadows of the chestnut forest served as a fitting background for this strange scene.

For a time the young physician stood as though transfixed. Then, concealed behind the trunk of a large tree, he unconsciously joined in the song, his voice mingling with the clear tones of the girl and the deep bass notes of the old man.

When the psalm was ended the girl turned her beautiful face toward heaven and prayed fervently to God to restore the sight to her father's eyes. At the close of the prayer she suddenly became aware of the presence of the stranger, who, advancing slowly toward them, asked the old man how long he had been blind. "For five years," answered the old man with a deep sigh, "I have lived in total darkness." "We have," said the young girl, "tried many remedies, but all in vain. We feel now that only God can help him."

The physician examined the eyes carefully and discovered that the old man's blindness was curable. Grasping the child and the old man by the hand he spoke with happy assurance: "Just as God sent an angel to the holy Tobias to restore his sight to him, so am I, for you, a heaven sent messenger. Your ailment, dear sir, can be cured. With God's help you will soon again see the light of day."

The old man pressed the hand of the young physician to his breast, and the girl sank on her knees in silent prayer. They then went to the home of the surgeon, and within a short time an operation was performed on the old man's eyes, and his sight was restored to him.

THOUGHT ANALYSIS

First Paragraph. After a pupil has read the first paragraph and its sub-

stance has been given by another pupil, the teacher may ask questions like the following: What is a cloister? What do you think is meant by "exquisite notes of a beautiful song"? What effect did the singing have on the physician? In reading this paragraph the teacher should pay particular attention to the last sentence. It should be read in a way to suggest to the pupils that they stop with the traveler and "reverently listen" to the imagined exquisite notes.

Second Paragraph. The last sentence puts us in an attitude of expectancy. It tells us that the man gazed upon a beautiful scene and the word "pathetically" suggests the touch of pathos in the scene. Care must be exercised in reading the last three words.

Third Paragraph. This paragraph is almost wholly descriptive. While the pupils have their books closed the teacher should read the paragraph in such a way that the pupils cannot help but picture in their imagination the scene the artist writer suggests. However, the accuracy of the first picture the pupils get needs to be tested; hence questions like the following should be asked:

What, do you suppose, is an "open chapel"? "Altar wall"? "Picture of the Madonna in living colors"? "Artistically carved"? "Medieval chapel"? "Mellow light"?

The pupils must see all the details mentioned that form a part of the chapel, together with the two people who are in it. The pupils should describe the chapel, together with the two people kneeling in it.

Fourth Paragraph. This paragraph does not call for the same artistic treatment that the previous one does. There is just one thought that the pupils must thoroughly appreciate; namely, that the music had entered the young man's soul or he would not have been "transfixed," nor would he "unconsciously" have joined in the song. The key words naturally are "transfixed" and "unconsciously."

Fifth Paragraph. In the third paragraph the author did not mention the beauty of the young girl. Can you assign a reason for his not doing so? What made her face more beautiful now than ever? We find the answer to this question in the thought expressed in the last sentence. Why did the man advance "slowly" toward the old man and his daughter?

Sixth Paragraph. Was the physician a modest man? A religious man? What makes you think so? Why did he compare himself to the angel sent by God to the holy Tobias?

Seventh Paragraph. In this paragraph the first sentence expresses sentiment and a deep feeling of gratitude. The second simply states a fact which we have naturally expected; hence the two sentences must be read quite differently. If you are overcome with feeling and emotion, you are apt to give expression to it in a look or an action, rather than in words.

The Selection as a Whole. Try to picture the entire scene or scenes suggested by the description which is mixed with narration, as follows:

The physician near a cloister, the song and its effect on him.

His walking in the direction of the light and what his eyes rested upon.

The open chapel with the altar wall, the picture of the Madonna, the silvery stream, the lamp, the blind peasant and his daughter, the fitting background, the song.

He stands transfixed and joins in the song.

He advances toward the old man and the girl and asks a question.

He is a physician and exercises his calling, his reference to the angel, his welcome diagnosis.

The effect of his words on the man, the girl.

Sight is restored to the old man.

Describe the successive pictures.

PHONICS IN READING

Elementary Sounds

In order that the teacher may successfully use phonics in teaching reading, a knowledge of the elementary sounds of our language is essential. For this reason, if the teacher is not familiar with these sounds, she should master them thoroughly before attempting to use phonics in the classroom.

Drill on the Consonant Sounds

To learn the consonant sounds, speak three or four times in succession any word whose initial sound is the consonant sound to be mastered. Make an effort each time to give the initial sound distinctly and yet to speak the word naturally. Notice carefully what the initial sound is. Then start to pronounce the word again, but this time do not utter more of it than the first sound. For instance, to obtain the sound of b, pronounce two or three times in succession the word box or ball. Start to pronounce the same word again, but stop after the first sound has been made. This initial sound is the sound of b. Try to obtain the same sound by pronouncing two or three times a word that ends with b, as cab. Notice the final sound. In this way you can obtain the correct sound of this letter.

To obtain the sound of d, practice as above on the word day, and then on the word head.

To obtain the sound of f, take for practice words fan and stiff.

To obtain the sound of g, practice on the words go and rag.

To obtain the sound of h, practice on the word hay.

To obtain the sound of J, practice on the word Joe.

To obtain the sound of k, practice on the words kite and book.

To obtain the sound of s, practice on the words see and miss.

To obtain the sound of t, practice on the words toe and mat.

To obtain the flat sound of th, practice on the words that and with.

To obtain the sharp sound of th, practice on the words thin and both.

Drill on the Vowel Sounds

All who know the names of the letters a, e, i, o, u, know the long sounds of these vowels, for the names of these letters are their long sounds. Practice upon these is unnecessary for the teacher. When y is a vowel, its long sound is the same as long i,—that is, its sound is the name of the letter i.

The short sounds of the vowels are to be found in the following words:

The sound of a in at, or in bat. The sound of e in egg, or in net. The sound of i in it, or in bit. The sound of o in odd, or in not. The sound of u in up, or in nut.

When y is a vowel, its short sound is the same as that of short i,—that is, the sound that i has in it, bit, etc. The teacher should practice on these short vowel sounds.

The remaining elementary vowel sounds are:

The broad sound of a heard in fall. The circumflex sound of a heard in care. The Italian sound of a heard in father. The short Italian a heard in grass. The circumflex sound of e heard in fern. The long sound of oo heard in moon. The short sound of oo heard in book. The sound of ou heard in out. The sound of oi heard in oil.

Drill on Easily-Confused Sounds

The teacher should be able to make all the elementary sounds with perfect correctness. There is danger that the sound of b will be sometimes given for p, the sound of t for d, etc. For this reason, teachers should carefully prac-

tice upon the sounds of letters in pairs, as given below.

Practice alternately b and p. Notice that in making the sound of b you place the lips in the same position as for p, but you force the voice out, separating the lips slightly. Notice that you use breath in p and voice in b. Contrast the words pipe and bite.

Practice alternately d and t. Notice the difference between the breath sound of t and the voice sound of d. Be careful that no voice is allowed to escape in uttering the sound of t and that no vowel sound is connected with the consonant sound, such as tur for t. Contrast dime and time.

Alternate the sound of k and hard c (c as heard in cat) with the sound of g. Notice that in making the sound of k and of hard c, which are precisely the same, you force breath out, but that there is no voice in this sound. In making the sound of g, you force breath out. Contrast Kate and gate.

Practice the sound of f alternately with the sound of v. Notice the use of the breath in making the sound of f; notice also that there is no voice. In making the sound of v, you force voice out. Contrast the words vine and fine.

Alternate the sound of j with the sound of y. Both are voice sounds; but, in making the sound of y, notice what a short, light sound it is. It is made by having the voice come through the smallest possible passage between the tongue and palate. It is exactly the same sound as that which we make when we give the name of the letter e, prolonging it somewhat. Contrast yet and jet.

Practice alternately the sounds of m and n. In connection with m, be careful to make no vowel sound such as em or mu. The sound of n is often given incorrect—as if it were un or en. Contrast man and Nan.

Practice alternately the sounds of l and r. Notice that in making the sound of l you force voice over the sides of the tongue. To make the sound of r you force voice out. Contrast right and light.

Practice alternately the sounds of s and z. To make the sound of s, you force breath out. Children should not be allowed to prolong this sound. To make the sound of z, you force voice out. Contrast gaze and base.

Practice the sound of x. Notice that it is the same as the sound of ks. Sound k and s together letting the sound of k glide into that of s.

PHONICS

Steps in Teaching Phonics

In teaching phonics the order of the initial work may be indicated as follows:

(a) Analyzing spoken words into their elementary sounds.

(b) Associating the elementary sounds represented by single letters with their written or printed symbols,—that is, with the single letters.

(c) Analyzing written and printed words into parts that correspond to the sounds into which these words are separated when spoken.

(d) Associating the sounds and forms of letters with their names.

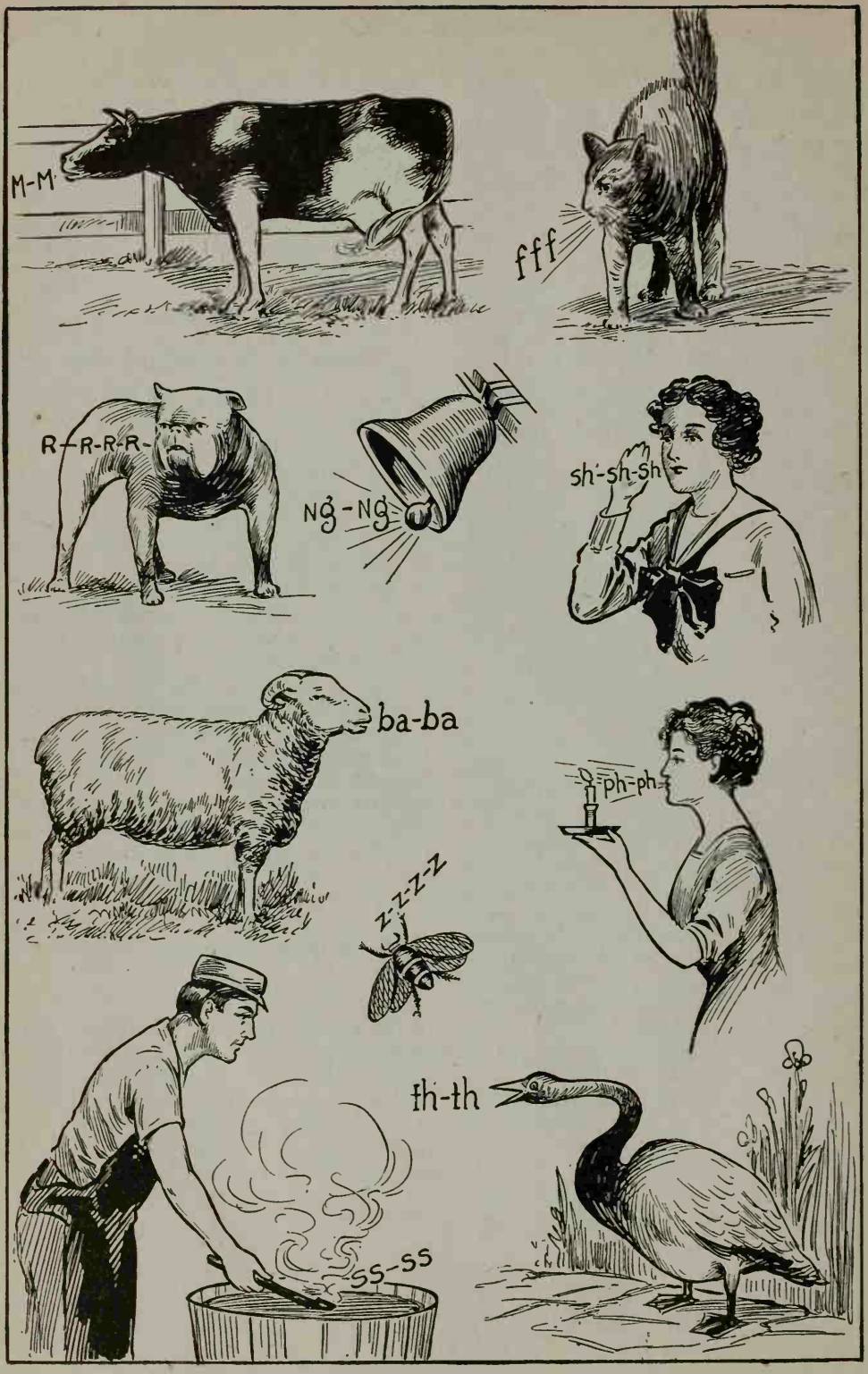
In order the more readily to associate sounds with letters, make liberal use of fancied resemblances. These resemblances may be adroitly introduced through a story, in which the dog growls (r); the cat says f; the cow, m; and sh says "be still"; ch is a sneeze; and wh blows out a candle.

Analysis of Spoken Words

Exercise I

The teacher should give as part of her earliest work with the children sentences which she wishes them to repeat, as, "The book is on the desk," "The sun is shining through the window," "The pictures are on the wall," etc. This is the beginning of formal language work. It is also the point at which slow pronunciation may begin.

After the children have begun to repeat sentences freely and readily, the teacher one day, without any intimation as to why she is doing it, speaks one of



WHAT ARE THE SOUNDS INDICATED?

the words of the sentence very slowly but in a perfectly natural way, as "The flowers are in the v a s e." The children will probably repeat the sentence readily enough, but will not speak the word vase slowly. The teacher gives another sentence in which she does not pronounce any word slowly. But in the third sentence she may pronounce one of the words slowly, as "The p e n is on my desk," etc. This exercise should be repeated often enough to accustom the children to the idea that words are sometimes spoken slowly.

Exercise II

Teacher: Children, look at this picture. Tom may tell me one thing he sees in it. Agnes may tell what she sees. Mary, what do you see?

Pupil: I see a dog. I see a little boy. I see the ocean.

Teacher: You may look at the picture, Ned, and tell me what you think has happened.

Pupil: I think the boy fell into the water. I think the big dog pulled him out.

Teacher: I am going to tell you a story about this picture: Once there was a little b o y. His name was T o m. Tom lived near the se a. He had a fine large d o g. The dog's name was N e d. Tom and Ned loved each other very m u ch. One day Tom was playing on the sh o r e. He ran too near the s ea and f e ll into the water. He screamed at the top of his v o ic e. Then he went down, down. He would have been drowned if it had not been for N e d. Ned heard him c r y. He came running, and into the water he went with a great l ea p. Just then Tom came u p to the t o p of the water. New c aught hold of his c oa t. He held it fast with his t ee th. Then he sw a m with Tom to the l a n d. He had saved his d ea r little master's life.

As many exercises of this kind may be given as the teacher thinks necessary. Other stories may be told without the use of a picture.

Exercise III

In the foregoing exercises the children's attention was not called to the slow pronunciation of some of the words. In the following exercise their attention may be directed to the slowly spoken words:

Teacher: Children, you know people do not always talk in the same way. Some speak rapidly, others speak more slowly. If you understand the words which I speak in that way, you may call them out quickly and softly.

Teacher: I am rubbing my ch ee k.
Pupils: Cheek.
Teacher: I am touching my n o se.
Pupils: Nose.

Teacher: Perhaps you understand my slowly spoken words because I was touching the parts of my face which I named so slowly. I shall not show you this time what I mean. If you understand me you need not speak. Just do what I ask and show me in that way that you understand me. Now listen closely and act quickly.

Teacher: Smooth your h air.
Touch your m ou th.
Stretch out your ar m.
Rub your thr oa t.
Show your t ee th.

Exercise IV

Teacher: Today you may do what I ask you to do if you understand me. Listen.

T o m may r u n.
W i ll may m a ke a b ow.
A nn ie may s k i p.
Katherine, you m ay sh u t the d oo r.

Review of Phonic Facts

In applying phonic facts to reading, the teacher should not allow a great number of these facts to accumulate in the pupils' minds without frequent reviews. Every two or three days there should be a review of all the sounds that they have learned and of all the symbols that represent these sounds.

OUTLINE FOR STUDY OF GRAMMAR

PREPARATION: The language books in current use introduce the elements of grammar in the intermediate grades. By the time the pupils reach the fifth grade they have learned that a sentence is composed of a subject, predicate and modifiers. They should also be able to distinguish the classes of sentences according to use, and according to structure. In the sixth and seventh grades they should learn the parts of speech, also classes, modifications and uses of each.

In the following pages we give you an outline on the sentence, as well as for each part of speech. Each outline giving the classes, modifications and uses, as well as an example of each. From these outlines the teacher will find it an easy and pleasant task to arrange and present the subject of grammar so that the interest of the pupils will be greatly increased.

In the assignment of lessons one of the chief purposes is to point out definitely what the pupil is to do, and to remove such obstructions as will take his thought from the main purpose of the lesson. Teaching by outline points out distinctly what the pupil is to do and interest is greatly increased.

SENTENCE

I. Classes
- a. ACCORDING TO USE.
  1. Declarative. Ex., The sun is shining.
  2. Interrogative. Ex., Where did you go?
  3. Imperative. Ex., Be honest.
  4. Exclamative. Ex., Hark! How the wind blows.
- b. ACCORDING TO STRUCTURE.
  1. Simple. Ex., Alaska has a cold climate.
  2. Complex. Ex., I know that you are right.
  3. Compound. Ex., She called, but he did not answer.

II. Parts
- a. SUBJECT.
  1. Word.
     - a. Noun. Ex., The mountain is high.
     - b. Pronoun. Ex., He is an orator.
     - c. Gerund. Ex., Seeing is believing.
  2. Phrase.
     - a. Prepositional. Ex., Over the fence is out.
     - b. Infinitive. Ex., To live dishonored is a fearful fate.
  3. Clause.
     - a. Noun Clause. Ex., What you say, makes no difference.
     - b. Adjective Clause. Ex., That he is polite is admitted.
     - c. Adverb Clause. Ex., When the sun sets, is evening.
- b. MODIFIERS OF SUBJECT.
  1. Word.
     - a. Adjective. Ex., The tall chimney was blown down.
     - b. Possessive Noun. Ex., The president's inauguration was enjoyed by those present.
  2. Phrase.
     - a. Prepositional. Ex., The book on the table is mine.
     - b. Infinitive. Ex., The way to win is to work.
     - c. Participial. Ex., He, swiftly running, reached the goal

3. Clause.
   a. Relative.
      x. Restrictive. y. Descriptive.

c. PREDICATE.
   1. Verb.
      a. Word. Ex., Ice melts.
      b. Phrase. Ex., He was well off.
   2. Modifiers of Verb.
      a. Adverb.
         1. Time. Ex., Go now.
         2. Place. Ex., Stay there.
         3. Manner. Ex., Go quietly.
         4. Degree. Ex., He reads very rapidly.
   3. Complements.
      a. Object Complement.
         x. Word. Ex., We picked the flowers.
         y. Phrase. Ex., The painter expected to become famous.
         z. Clause. Ex., He promised that he would be on time.
      b. Attribute Complement.
         x. Word. Ex., You will be secretary.
         y. Phrase. Ex., To see is to believe.
         z. Clause. Ex., The plan agreed upon was that each should pay half.
      c. Objective Complement.
         x. Word. Ex., Your generosity makes all men your friends.
         y. Phrase. I have run myself out of breath.

PARTS OF SPEECH

Noun

A. CLASSES.
   1. Common. Ex., House.
   2. Proper. Ex., Philadelphia.
   3. Abstract. Ex., Whiteness.
   4. Collective. Ex., Swarm.

B. MODIFICATIONS.
   1. Number.
      a. Singular. Ex., Table. b. Plural. Ex., Hats.
   2. Gender.
      a. Masculine. Ex., Brother. b. Feminine. Ex., Sister.
      c. Neuter. Ex., Stone.
   3. Case.
      a. Nominative. Ex., Birds fly.
      b. Possessive. Ex., The boy's hat is lost.
      c. Objective. Ex., The hunter killed the bear.

C. USES.
   1. Nominative.
      a. Subject. Ex., The moon shines.
      b. Predicate Noun. Ex., The soldier became captain.
      c. In Apposition. Mr. Bron, the merchant, is ill.
      d. Independent.
         x. Vocative. Ex., Frank, who is there?
         y. Nominative Absolute. Ex., The whistle blowing, we stopped.
         z. Exclamation. Ex., Heavens!

2. Possessive.
   a. Noun Modifier. Ex., The miller's house was burned.
3. Objective.
   a. Direct Object. Ex., The frost has killed the flowers.
   b. Indirect Object. Ex., Jennie gave Mary a rose.
   c. After Preposition. Ex., They left before sunrise.
   d. Apposition of noun in objective case. Ex., I know your friend, the judge.
   e. Objective Complement. Ex., The boys made him their leader.
   f. Adverbial Objective. Ex., The stillness continued five minutes.

Pronoun

A. CLASSES.
   1. Personal. Ex., I went home.
      a. Simple. Ex., He.
      b. Compound. Ex., Myself.
         y. Intensive.
         z. Reflective.
   2. Interrogative. Ex., Who is going?
   3. Relative. Ex., My friend whom you met is a doctor.
   4. Demonstrative. Ex., Who did this?
   5. Indefinite. Ex., Somebody said so.

B. MODIFICATIONS.
   1. Person.
      a. First. Ex., I.
      b. Second. Ex., You.
      c. Third. Ex. They.
   2. Number.
      a. Singular. Ex., I.
      b. Plural. Ex., They.
   3. Gender.
      a. Masculine. Ex., He.
      b. Feminine. Ex., She.
      c. Neuter. Ex., It.
   4. Case.
      a. Nominative. Ex., I went home.
      b. Possessive. Ex., His cap is lost.
      c. Objective. Ex., It belonged to them.

C. USES.
   1. Nominative.
      a. Subject. Ex., I heard the music.
      b. Attribute Complement. Ex., It is I.
   2. Possessive.
      a. Modifier of noun. Ex., Her picture was beautiful.
   3. Objective.
      a. Object of a verb. Ex., The mother worshiped him.
      b. Object of a preposition. Ex., I talked to her.
      c. Indirect object. Ex., Bring me the book.
      d. Subject of an infinitive. Ex., Do you want him to be the winner?
      e. Attribute complement. Ex., I know it to have been her.

Verb

A. Classes.
  1. According to form.
    a. Transitive. Ex., He found his book.
    b. Intransitive. Ex., The horse ran away.
  2. According to structure.
    a. Regular. Ex., Walk, walked.
    b. Irregular. Ex., Run, ran.

B. Principal Parts.
  1. Present.
  2. Past.
  3. Past Participle.

C. Modifications.
  1. Voice.
    a. Active. Ex., The frost has killed the flowers.
    b. Passive. Ex., John was struck by Henry.
  2. Mood.
    a. Indicative. Ex., The girl broke her doll.
    b. Subjunctive. Ex., If I were you I would not go.
    c. Imperative. Ex., Bring me the paper.
  3. Tense.
    a. Present. Ex., I am walking.
    b. Present Perfect. Ex., I have been reading.
    c. Future. Ex., She will come tomorrow.
    d. Future Perfect. Ex., I shall have finished by the time you return.
    e. Past. Ex., Did you go yesterday?
    f. Past Perfect. Ex., I had not seen him for two years.
  4. Person.
    a. First.
    b. Second.
    c. Third.
  5. Number.
    a. Singular.
    b. Plural.

D. Verbal Forms.
  1. Participle.
    a. Adjective.
  2. Gerund.
  3. Auxiliary.

Adjective

A. Classes.
  1. Descriptive. Ex., Young.
    a. Numerals.
      y. Cardinal. Ex., Three.
      z. Ordinal. Ex., Second.
    b. Articles. Ex., An.
    c. Pronominal.
      w. Demonstrative. Ex., This.
      x. Interrogative. Ex., Who.
      y. Indefinite. Ex., a or an.
      z. Definite. Ex., The.
  2. Limiting. Ex., That.

B. Modifications.
  1. Comparison.
    a. Degree.
      x. Positive. Ex., Hard.
      y. Comparative. Ex., Harder.
      z. Superlative. Ex., Hardest.

C. Uses.
1. Attribute. Ex., A wonderful victory followed.
2. Predicate.
a. Attribute Complement. Ex., The path was smooth.
b. Objective Complement. Ex., The painter painted the house white.
3. Substantive. Ex., Do not listen to the words of the flatterer.

Adverb

A. Classes.
1. According to use.
a. Limiting. Ex., She moves swiftly.
b. Interrogative. Ex., Where did you go?
c. Conjunctive. Ex., She went to the city, where she remained.
2. According to form.
a. Simple. Ex., Very.
b. Flexional. Ex., Quickly.
c. Phrasal. Ex., At once.
3. According to meaning.
a. Time. Ex., Go now.
b. Place. Ex., Come here.
c. Manner. Ex., She plays softly.
d. Degree. Ex., The wind was very cold.

B. Modifications.
1. Comparison.
a. Degree.
x. Positive.
y. Comparative.
z. Superlative.

C. Uses.
1. Modifier of Verb. Ex., He ran swiftly.
2. Modifier of Adjective. Ex., She was a very small girl.
3. Modifier of Adverb. Ex., The water flowed very swiftly.

Preposition

A. Classes.
1. Simple. Ex., at, after.
2. Compound. Ex., Across, about.

B. Uses.
1. Prepositional Phrase. Ex., We walked across the bridge.
2. Part of Verb Phrases. Ex., He stopped in front of the store.

Conjunction

A. Classes.
1. According to use.
a. Co-ordinate. Ex., She and I will go.
b. Subordinate. Ex., He is taller than I am.
2. According to form.
a. Simple, Ex., When.
b. Phrasal. Ex., As though.

Interjection

A. Classes.
1. Simple. Ex., Ah!
2. Secondary. Ex., Farewell.
3. Phrasal. Ex., I turned and lo! he had vanished.

CORRECT ENGLISH

FOREWORD

It is of first importance to be able to speak correctly. Whatever your work or position in life, you will find that your progress and success depend to a great extent upon the way you express yourself. You can hold no position of great trust or responsibility if your speech is marred by bad blunders, nor will your employer advance you if you show an ignorance of the ordinary rules of grammar. Many a person has humiliated himself and his friends by the blunders he has made in the presence of cultivated people. You cannot afford to speak incorrectly, from either a business or a social standpoint.

In the following pages we point out some of the common errors in English and grammar, and give suggestions to aid in overcoming bad habits of speech.

ERRORS IN THE USE OF PRONOUNS

Nominative and Objective Forms

The nominative and objective forms of personal pronouns are frequently misused. The nominative forms *I, he, she, we* and *they* are used correctly in the following sentences:

Harry and *I* went home. Neither *he* nor *she* is able to come. *They* are the children of poor parents. Was it *I* or *he* that you saw? It was *he*. *He* was in the car. Did you know it was *I* who called? *We* and *they* are neighbors. Did you hear what *they* said?

In these sentences notice that the nominative forms are used in two ways: as subject and as part of the predicate. In the sentence "He was in the car," *he* is the subject of the verb. In the sentence "It was he," *he* is used in the predicate to mean the same thing as the subject. When a pronoun is joined to the subject by a connecting verb in this way we call it the complement of the verb, and we must use the nominative form.

Therefore you must never say, "It was him," or "It was me."

Construct a number of sentences in which the nominative forms are correctly used, and practice saying them until you are familiar with them.

The Troublesome Them

Them gives as much trouble as all the rest of the personal pronouns put together, because it is confused with *these* and *those*. How frequently do we hear such expressions as "Give me them books," and "Them here books are mine."

The speaker should say: "Give me those books," and "These books are mine."

These and *those* are used as adjectives here, to point out the objects to which they refer. *Them* can never be used as an adjective. The error mentioned above is one of the worst that anyone can make.

Who and Whom

Who and *whom* are the nominative and objective forms of the relative pronoun. The following sentences illustrate their uses:

(1) She is a girl *who* likes to study. (2) To *whom* do you refer? (3) She knows the child *whom* John brought with him.

Who in the first sentence is the subject of the verb *likes*. *Whom* in the second sentence is governed by the preposition *to*. *Whom* in the third sentence is the object of the verb *brought*.

Now let us examine some more difficult constructions. Which of the following sentences is correct?

The older is a girl whom I believe deserves praise.

(or)

The older is a girl who I believe deserves praise.

The first sentence is incorrect because the relative is the subject of the verb *deserves,* not the object of *believe.*

If we put *I believe* in a parenthesis this will be readily seen:

The older is a girl who (I believe) deserves praise.

This is a common error that should be guarded against.

Examine these sentences:

Whom did you say was here today?

Who did you say was here today?

The second is correct, for the relative is the subject of the verb *was.* The clause *who was here today* is the object of the verb *did say.*

Again:

We met a young lady who we thought very charming.

We met a young lady whom we thought very charming.

The second is correct, because *whom* is the subject of an infinitive understood. Expanded, the sentence would read: We met a young lady whom we thought (to be) very charming.

Remember this: *The subject of a finite verb is in the nominative case; the subject of an infinitive is in the objective case.*

You will have seen by this time why a knowledge of grammar is necessary.

Practice the above uses of *who* and *whom.*

An Important Use of the Possessive

We often hear such expressions as "My father does not like the idea of *me* going away."

The speaker should say: "My father does not like the idea of *my* going away."

Going in this instance is a gerund (a verb form ending in *ing* used as a noun). Some grammarians call *my* in the expression *my going* the subject of the gerund. The rule is to use the possessive case.

Practice these sentences:

What do you think of *my* studying algebra?

Your progress will depend upon *your* being faithful.

Our going away will not affect *your* carrying on the work.

The Pronoun and Its Antecedent

Recently the following advertisement appeared in a newspaper:

"Everybody is telling their neighbors to see this opera."

The copy writer should have written: "Everybody is telling his neighbors."

Everybody refers to each one separately of a group and it is therefore singular. *Everybody* is the antecedent of *his,* also singular.

A pronoun agrees with its antecedent in number.

Therefore never say: "A person who is energetic in their work will succeed."

You should say: "A person who is energetic in his work will succeed."

Practice the following:

Anyone who will bring *his* books back will be rewarded.

Neither of the boys was aware of *his* fault.

Each lady thought that *she* had made the mistake.

We will notify anybody who leaves *his* hat unchecked.

Not one of the girls recovered *her* property.

ERRORS IN THE USE OF ADVERBS

The position of *only* is a constant source of trouble. *Only* should precede the expression it modifies.

SAY	DO NOT SAY
I found only one book.	I only found one book.
The children collected only a few of the shells.	The children collected a few only of the shells.

Be careful where you place the adverb in a sentence.

SAY	DO NOT SAY
I shall willingly do what you desire.	I shall do what you desire willingly.
Recently there was discovered a manuscript which had been written by a Greek poet.	There was discovered a manuscript which had been written by a Greek poet recently.

Do not use an adverb with a verb like *sounds, seems, looks, smells, tastes,* etc. These verbs are followed by adjectives.

CORRECT	INCORRECT
The bell sounds harsh.	The bell sounds harshly.
The flower smells sweet.	The flower smells sweetly.
The girl looks happy.	The girl looks happily.

ERRORS IN THE USE OF ADJECTIVES

Do not use the expression *largest of any.*

London is the largest of all cities; not, London is the largest of any city.

Also: London is larger than any other city in England; not London is larger than any city in England. The latter would mean that London is larger than itself.

Use the comparative degree when comparing two objects, as in this sentence: Which is *more* desirable, a good name or great riches?

ERRORS IN THE USE OF LIKE

Like is not a conjunction. Do not use it as a synonym of *as.*

The following is a very erroneous sentence:

The teacher says we must read like she does.

This should be stated:

The teacher says we must read as she does.

WITHOUT AND UNLESS

Without is a preposition; *unless* is a conjunction.

"Without you do right you will not succeed" is very erroneous.

The correct form is: "Unless you do right you will not succeed."

Do not use *without* when you mean *unless* or *if not.*

AGREEMENT OF SUBJECT AND VERB

While the rule that the verb agrees with its subject in number is very well known, it is often disregarded when several words come between the subject and predicate.

"The trip of five months have been very delightful" is wrong. *Have* should be *has,* for *trip,* and not *months,* is the subject.

Note also:

Incorrect: A great variety of duties are not desirable.

Correct: A great variety of duties is not desirable.

Incorrect: Neither of the children are well.

Correct: Neither of the children is well.

SINGULAR NOUNS ENDING IN S

There is a tendency to use a plural verb with a singular noun when the noun has a plural ending. Such words as *news, means, wages, measles,* are singular.

These forms are correct:

This is good news.
The means I used was justified.
The wages of sin is death.
Measles is a contagious disease.

IRREGULAR VERBS

The various forms of the verbs *be, do, go, lay, lie, see, set* and *sit* give a great deal of trouble.

It is a good idea to write out a table of the principal parts of these verbs, as follows:

PRESENT TENSE	PAST TENSE	PRESENT PARTICIPLE	PAST PARTICIPLE
am (are) (is)	was	being	been
do	did	doing	done
go	went	going	gone
lay (to place)	laid	laying	laid
lie (to rest)	lay	lying	lain
see	saw	seeing	seen
set (to place)	set	setting	set
sit (to rest)	sat	sitting	sat

You should learn these forms and use them in sentences until you are perfectly familiar with them.

Cautions

Do not use *ain't* for the contraction *isn't*. The former is never permissible.
Do not use the past participle for the past tense.
I seen him and *I done it* are inexcusable.
Do not confuse *lie* and *lay*. Observe:

CORRECT	INCORRECT
I lie down when I sleep.	I lay down when I sleep.
I lay down yesterday.	I laid down yesterday.
She has lain down to rest.	She has laid down to rest.
I have laid the book on the table.	I have lain the book on the table.

Lie (to rest) is intransitive; *lay* (to place) is transitive.
Sit and *set* are often confused. *Sit* is intransitive; *set* is transitive.

CORRECT	INCORRECT
I sit on the porch to read.	I set on the porch to read.
I sat here yesterday.	I set here yesterday.
I set the lamp on the mantel this morning.	I sat the lamp on the mantel this morning.

THE DOUBLE NEGATIVE

Do not use two negatives to express negation.
"I have no book" is correct; not, "I haven't no book."
"I can never come again;" not, "I can't never come again."
"There is no one here;" not, "There ain't no one here."

USE AND ABUSE OF WORDS

The following list contains words and expressions frequently misused:

Alternative, used in reference to more than two things.

Say: "There were three different courses open;" not, "There were three alternatives open."

Avocation, for *vocation*. An avocation takes one away from his vocation.

Good, for *well*. *Well* is both an adjective and an adverb; *good* is an adjective.

Say: "She plays well;" not, "She plays good."

Know as, for *know that*.

Party, for *person*.

It is correct to speak of a picnic party or a party of campers, but the individual members are persons. (*Party* is used for *person* in legal phraseology, an apparent exception.)

Guess, for *think*.

Posted, for *informed*.

A person is well informed, not well posted.

Some, for *somewhat*.

We are *somewhat* refreshed when we drink lemonade, not *some* refreshed.

Leave, for *permit*.

Do not say: "Leave me go home;" but, "Permit (or allow) me to go home."

Transpire, for *occur*.

Transpire means to become known.

Aggravate, for *irritate*.

We *aggravate* our troubles by worrying; we *irritate* our friends by our lack of consideration.

Mad, for *angry*.

Quantity, for *number*.

We buy a *quantity* of sugar, and a *number* of pounds of flour.

To allow, for *to concede*.

We *concede* an election to our opponent; we do not *allow* it.

Barbarisms

Barbarisms are words that are unacceptable as language forms. They are "words that are not words."

Among those commonly heard are:

Ain't, for *am not, isn't* or *aren't*.

Complected, for *of a certain complexion*.

Het, for *heated*.

Rattled, for *confused*.

Unbeknown, for *unknown*.

Enthuse, for *to become or make enthusiastic*.

Peradventure, archaic form for *perhaps*.

To pack, for *to carry*.

To size up, for *to form an estimate of*.

LITERATURE

Books are the immortal sons deifying their sires.—*Plato.*

THE LIBRARY

"Let there be Light!" God spake of old,
And over chaos dark and cold,
And through the dead and formless frame
Of nature, life and order came.

Faint was the light at first that shone
On giant fern and mastodon,
On half-formed plant and beast of prey,
And man as rude and wild as they.

Age after age, like waves o'erran
The earth, uplifting brute and man;
And mind, at length, in symbols dark
Its meanings traced on stone and bark.

On leaf of palm, on sedge-wrought roll,
On plastic clay and leathern scroll,
Man wrote his thoughts; the ages passed,
And lo! the Press was found at last!

Then dead souls woke; the thoughts of men
Whose bones were dust revived again;
The cloister's silence found a tongue.
Old prophets spake, old poets sung.

And here, today, the dead look down,
The kings of mind again we crown;
We hear the voices lost so long,
The sage's word, the sibyl's song.

Here Greek and Roman find themselves
Alive along these crowded shelves;
And Shakespere treads again his stage,
And Chaucer paints anew his age.

As if some Pantheon's marbles broke
Their stony trance, and lived and spoke,
Life thrills along the alcoved hall,
The lords of thought awake our call.

—*John G. Whittier.*

THE STUDY OF LITERATURE

What Literature Is. We all know in a general way what is ordinarily understood by the term *literature*—that it embraces the written productions of the human race. So broad a definition, however, needs some modification to be satisfactory. Those writings, for instance, which have merely technical or statistical value, would not be classed as literature; a textbook on trigonometry or a volume of the Census Report is an important and a necessary document, but it has no literary value. Nor has the yellow-back "thriller" that little Johnny secretly devours in a secluded nook in the haymow any literary value.

What qualities, then, does a work of literature possess? When we examine some of the world's writings that are universally acknowledged as literature—the poetry of Dante, Milton and Tennyson, the novels of Hugo, Thackeray and Hawthorne, the essays of Emerson and Ruskin, to mention but a few names—

we discover that these writers produced works of enduring value, expressing genuine emotion and appealing to the intellect and the imagination. Moreover, these writers of literature expressed their thoughts in language that is effective and pleasing. Little Johnny thinks he is being stirred by the adventures of his yellow-back hero, but there is no appeal to the imagination nor any genuine expression of emotion in the artificial and exaggerated story of the dime-novel type. Rather, there is an appeal to the nerves, and it is the senses that are stirred. If we exclude from our conception of literature that which is trivial, commonplace, poorly expressed and of merely passing interest, and include that which represents the best utterance of the human mind, those writings which have served to elevate and inspire mankind, we shall have a fairly correct notion of literature.

Why We Should Study Literature. In our discussion of the study of literature, it will be well, first of all, to decide what we mean by the term *study*. That is a word which frequently has unhappy associations, bringing back recollections of a sum in arithmetic that would not solve, or a bewildering maze of dates and battles that would not stay memorized. There is another extreme —the hasty skimming of the pages of a book, whereby we gain only a superficial knowledge of their content. Is there a happy mean between the irksome and wearisome mastery of an unwelcome lesson, and the thoughtless and careless perusal of printed matter? Yes, the true study of literature is a delightful process by which the student enters into the spirit of the book he reads, making the thought of the author a part of his own mental content. This study is not a laborious and dreary task; on the other hand, it is not a trivial matter, but one demanding a certain amount of thoughtful application, as we shall see later.

There are several excellent reasons why we should study literature; first of all, because of its refining influence. With music, painting and sculpture, literature for ages has served to elevate the race, and devotion to literature is essential to the attainment of culture. The student of literature comes in close touch with the greatest minds of all time, and his association with these minds will have the same influence as association with intellectual companions. This is what Emerson had in mind when he said: "Go with mean people and you think life is mean. Then read Plutarch, and the world is a proud place, peopled with heroes and demigods standing around us, who will not let us sleep."

It is chiefly through books that we enjoy intercourse with superior minds; and these invaluable means of communication are in the reach of all. . . . No matter how poor I am; no matter though the prosperous of my own time will not enter my obscure dwelling; if the sacred writers will enter and take up their abode under my roof—if Milton will cross my threshold to sing to me of Paradise; and Shakespeare to open to me the worlds of imagination and the workings of the human heart; and Franklin to enrich me with his practical wisdom—I shall not pine for want of intellectual companionship, and I may become a cultivated man, though excluded from what is called the best society in the place where I live.—*Channing.*

Again, those who are versed in literature have an inestimable advantage when mingling in society. The student of literature knows much about other countries, and the habits and customs of people in other climes, and, even if denied the happiness of visiting the scenes of beauty and historic interest across the sea, he has viewed them in imagination, with great men of genius as his guides. Such a person is never at a loss in general society for subjects of conversation, and he has ever at his command resources that enable him to bear himself with ease and confidence. Thus he not only adds to his own pleasure, but he is an asset to society, and a source of enjoyment to his fellow men.

Remember that all the known world, excepting only savage nations, is governed by books.—*Voltaire.*

Of still greater importance is the fact that by the study of literature one adds materially to his knowledge of life, for it is in literature that we find presented all types of humanity and all phases of human experience. That famous burlesque on chivalry, *Don Quixote,* has lived through centuries, because, beneath his fun, the author had revealed a genuine knowledge of human life and character. Shakespeare's characters live for us today and serve as object lessons, though created some 300 years ago. We learn as we study these creations of great minds, just as truly as we learn when we study the people with whom we come in contact. So by means of the world about us and the world of books we grow into a deeper and richer knowledge of this wonderful and complex thing we call life.

The great consulting room of a wise man is a library. When I am in perplexity about life, I have but to come here, and, without fee or reward, I commune with the wisest souls that God has blest the world with. If I want a discourse on immortality, Plato comes to my help. If I want to know the human heart, Shakespeare opens all its chambers. So that a library may be regarded as the solemn chamber in which a man can take counsel with all that have been wise and great and good and glorious amongst the men that have gone before him.—*Dawson.*

Lastly, we must not forget that the study of literature can be made a form of recreation; for literature is so varied, and covers so vast a multitude of themes, that it can be adapted to every mood we experience. There are times when we feel the stress of life too keenly, and we need the mental relaxation that certain forms of literature can give. This is the playtime that occasionally all must seek, regardless of age, habit or occupation. Those who have learned to find in books the wholesome pleasures they can afford, have discovered a means to enhance the joy of living, and a future solace in old age, when active forms of recreation are denied.

Happy is he who, when the day's work is done, finds his rest, and solace, and recreation in communion with the master minds of the present and of the past—in study, in literature, and the enjoyment of pleasures which are to be derived from this source. . . . There is no rest, no recreation, no refreshment to the wearied and jaded body and mind, worn by work and toil, equal to the intellectual pleasures to which I have just been referring.—*Cockburn.*

How to Study Literature. A few general suggestions as to methods of study will be of advantage at this point; particular suggestions in connection with the study of a specific masterpiece are given farther on. It should be remembered, first of all, that really to assimilate a work of literature we must do more than read the words on the pages. To enter into the spirit of the author and to comprehend his message, to attain a genuine appreciation for the beauty and strength of his work—this requires intelligent and patient application. We should also discriminate between studying literature and reading about it. While literary criticism has its own particular value and plays an important part in literary studies, it cannot take the place of first-hand knowledge. The student who has read much and can talk learnedly about the beauty of lyric poetry, has missed the best part of his lesson if he has never been thrilled by the rhythm and melody of the lyrics of our great poets.

In regard to the selection of our material, too much cannot be said about cultivating good literary tastes. Few are endowed by nature with unerring taste in respect to art and literature, and with most of us it is a matter of conscientious devotion to what has been approved as the best. Here we find the great value of literary criticism. If we are not as yet ready to select, unaided, the best in literature, we must first be guided by those in whose judgment we cannot be mistaken. The cultivation of correct tastes frequently calls for genuine mental exertion and perseverance, but its rewards are well worth while. Through earnest endeavor to find the precious gems in the storehouses of literature comes the power to appreciate what the best minds of the human race have handed down to posterity.

A certain amount of research work should accompany the study of any work of literature if we would intelligently assimilate it. We should know something of the circumstances under which it was written and the main outlines of the author's life and character, as well as something of the contemporary events and political and social conditions of the period in which it was produced. Unless we make ourselves familiar, for instance, with the history and political conditions of 18th-century England, we shall fail to grasp the full significance of that wonderful historical novel of Thackeray—*Henry Esmond*. .

Again, literature contains countless allusions to historical, Biblical, mythological and other subjects, which should certainly be understood if the student is to gain an intelligent conception of the work he is studying. Any research study, however, must be subordinate to the object of the study—to grasp the work as a unit and to enter fully into its spirit. Any sort of study that interferes with our ability to read with sympathy and appreciation defeats its own purpose.

A Word of Caution. It is well not to attempt to do too much. More satisfactory results are obtained by carefully studying a few writings, than by attempting to go through a long list for the mastering of which there is insufficient time. A certain degree of deliberation is always preferable to the haste which results in a confusion of ideas. Finally, the study of literature should always bring with it enjoyment, and some discrimination should be used in selecting those forms of literature for which the student is adapted by temperament. This does not mean that we must read only those books for which we have a strong liking, and slight all the rest. As was suggested above, a developing literary appreciation comes through cultivation, and the honest seeker for culture will not shirk the task which requires effort. But the best results are obtained when the literary study is accompanied by a pleasure in the work, and it is not to be denied that individual preferences must, within certain limits, guide us in our selections.

AN EFFICIENT HELPER

The student of literature will find THE HOME AND SCHOOL REFERENCE WORK helpful in his search for culture. Attention is called to the article *Literature* (pages 1649-1664), the purpose of which is to trace the progress of the world's literature from its beginnings to the present time, thus showing how the literature of today has developed from that of ancient times. While the study of literary masterpieces is of highest importance, it is necessary to know something of the history of literature, and the general article presents this subject in a concise and orderly manner. The following synopsis shows the scope of the article:

LITERATURE

I. Introduction

II. Ancient Literature of the Oriental Nations
1. Babylonia and Assyria
2. Egypt
3. China
4. The Hebrews
5. India
6. Persia

III. Greek Literature
1. Early Literature
2. Period of Attic Literature
3. Literature of the Decadence

IV. Roman Literature
1. Early Literature
2. Age of Cicero
3. Augustan Age
4. Silver Age
5. Middle and Later Empire

V. Arabian Literature

The connecting link between ancient and modern literature

VI. Continental European Literature

1. Italian
2. French
3. Spanish
4. Portuguese
5. Russian
6. Dutch
7. German
8. Scandinavian

VII. English Literature

1. Anglo-Saxon Period
2. From the Conquest to the Death of Chaucer
3. From the Death of Chaucer to Elizabeth
4. Elizabethan Period
5. From the Elizabethan Period to the Restoration
6. Restoration Period
7. Eighteenth Century Period
8. Period of Romanticism
9. Victorian Period
10. Literature of Today

VIII. American Literature

1. Colonial and Revolutionary Period
2. National Period

IX. Canadian Literature

Following the article *Literature* is a chronological chart of English and American literature (pages 1665-1671), including the most significant authors and their representative works. A column of the most important writers of foreign literature is also a valuable feature of the chart, as it shows with whom the world's great writers were contemporaneous. The chart will prove of interest and value to the student, teacher or general reader.

Literature is divided into prose and poetry. In this reference work is a helpful exposition of poetry, showing how it differs from prose and how it is classified. Further, there is given an explanation of the principal poetic terms, such as rhythm, meter, etc., as indicated in the synopsis following. The reader will appreciate the value of having all of these poetic subjects given in one general article, *Poetry,* instead of being scattered throughout the work.

POETRY

I. Definition

II. Origin and Development

III. Classification

1. Epic Poetry—
   - (a) Great Epic
   - (b) Ballad
   - (c) Lyrical Ballad
   - (d) Metrical Romance
   - (e) Descriptive Epic
2. Lyric Poetry—
   - (a) Song Lyric
   - (b) Reflective Lyric—
     - (a′) Ode
     - (b′) Elegy
     - (c′) Sonnet
3. Dramatic Poetry—

IV. Poetical Style

V. Rhythm

VI. Meter

VII. Tone Quality

1. Onomatopœia
2. Alliteration

VIII. Rhyme

IX. Blank Verse

Another important article is that on *Drama,* the scope of which is shown in the accompanying synopsis. Each dramatist mentioned in the outline is treated in a special biographical sketch. However, these are but a few of the dramatists discussed in The Home and School Reference Work; a full list of these is given in the Department of Literature, Topical Index.

DRAMA

I. Character and Divisions

II. Athenian Drama

1. Tragedy—
   (a) Thespis
   (b) Æschylus
   (c) Sophocles
   (d) Euripides
2. Comedy—
   (a) Aristophanes
   (b) Menander

III. Roman Drama

1. Comedy—
   (a) Plautus
   (b) Terence
2. Tragedy—
   (a) Seneca

IV. Medieval Drama

1. Mystery Play
2. Miracle Play
3. Morality

V. English Drama

1. Pre-Shakespearean Drama
2. Elizabethan Drama—
   (a) Marlowe
   (b) Shakespeare
   (c) Jonson
3. Restoration Drama—
   (a) Wycherley
   (b) Otway
   (c) Congreve
   (d) Dryden
4. Later Drama—
   (a) Goldsmith
   (b) Sheridan
   (c) Jones, Shaw, Galsworthy, Barrie, Pinero

The general article, *Fiction*, the scope of which is here given, will also prove of interest to the student.

FICTION

I. Definition and History

II. Modern Types

1. The Novel
2. The Fable
3. The Parable
4. The Allegory
5. The Fairy Tale

In the index will be found numerous other topics connected with the study of literature, and it will be noted that The Home and School Reference Work is unusually thorough in its department of literary biography. Special attention has been paid to giving estimates of the work of men of literary genius, and such men as Shakespeare, Goethe and Lowell are given extended treatment.

It has been the desire of the editor of this department to make this reference work a genuine aid to those of its readers who are interested in literature. By carefully following the suggestions given in this article the reader will, we trust, speedily come to a more thorough understanding and a fuller appreciation of the beauties of literature which will add much to his enjoyment. As extensive reading as is possible from a carefully chosen list of the better newspapers, magazines and current books is also recommended.

THE STUDY OF LYRIC POETRY

We apply the name lyric to that poetry which expresses the emotions of the poet or of those whom he represents. A lyric has been defined as "a musical expression of emotions by language." It may express joy or sorrow, and these in varying degrees, but the emotional element is developed without the aid of narrative. The lyric has many different forms, important among which are the song, the ode, the elegy and the sonnet. The reader will find these discussed in the article *Poetry*, Volume V, The Home and School Reference Work. Lyric poetry offers unusual advantages to those interested in the higher forms of poetic language. It had very wide sway in the

19th century, and the student has a wealth of material to choose from in the outburst of song of the Romantic poets of England. At the close of this section is a list of poems suggested for study.

A STUDY OF SHELLEY'S "ODE TO THE WEST WIND"

You cannot properly appreciate the poetry of Percy Bysshe Shelley until you have learned something of his life and character, for his poetry is essentially an expression of his own individuality. If possible, read an extended biography of the poet. The *Ode to the West Wind* is chosen for study because it is a typical lyric, and because it is one of the most perfect in form of Shelley's poems. Previous to analyzing the ode, the student should read it as a whole, entering reverently into its spirit, and approaching its study with sympathetic appreciation.

ODE TO THE WEST WIND

I

O, wild West Wind, thou breath of Autumn's being,
Thou, from whose unseen presence the leaves dead
Are driven, like ghosts from an enchanter fleeing,

Yellow, and black, and pale, and hectic red,
Pestilence-stricken multitudes: O, thou,
Who chariotest to their dark wintry bed

The wingèd seeds, where they lie cold and low,
Each like a corpse within its grave, until
Thine azure sister of the spring shall blow

Her clarion o'er the dreaming earth, and fill
(Driving sweet buds like flocks to feed in air)
With living hues and odors plain and hill:

Wild Spirit, which art moving everywhere:
Destroyer and Preserver; hear, O, hear!

II

Thou on whose stream, 'mid the steep sky's commotion,
Loose clouds like earth's decaying leaves are shed,
Shook from the tangled boughs of Heaven and Ocean,

Angels of rain and lightning: there are spread
On the blue surface of thine aëry surge,
Like the bright hair uplifted from the head

Of some fierce Mænad, even from the dim verge
Of the horizon to the zenith's height
The locks of the approaching storm. Thou dirge

Of the dying year, to which this closing night
Will be the dome of a vast sepulcher
Vaulted with all thy congregated might

Of vapors, from whose solid atmosphere
Black rain, and fire, and hail will burst: O, hear!

III

Thou who didst waken from his summer dreams
The blue Mediterranean, where he lay,
Lulled by the coil of his crystalline streams,

Beside a pumice isle in Baiæ's bay,
And saw in sleep old palaces and towers
Quivering within the wave's intenser day.

All overgrown with azure moss and flowers
So sweet, the sense faints picturing them! Thou
For whose path the Atlantic's level powers

Cleave themselves into chasms, while far below
The sea-blooms and the oozy woods which wear
The sapless foliage of the ocean, know

Thy voice, and suddenly grow gray with fear,
And tremble and despoil themselves: O, hear!

IV

If I were a dead leaf thou mightest bear;
If I were a swift cloud to fly with thee;
A wave to pant beneath thy power, and share

The impulse of thy strength, only less free
Than thou, O, uncontrollable! If even
I were as in my boyhood, and could be

The comrade of thy wanderings over heaven,
As then, when to outstrip thy skiey speed
Scarce seemed a vision; I would ne'er have striven

As thus with thee in prayer in my sore need.
Oh! lift me as a wave, a leaf, a cloud!
I fall upon the thorns of life! I bleed!

A heavy weight of hours has chained and bowed
One too like thee: tameless, and swift, and proud.

V

Make me thy lyre, even as the forest is:
What if my leaves are falling like its own!
The tumult of thy mighty harmonies

Will take from both a deep, autumnal tone,
Sweet though in sadness. Be thou, Spirit fierce,
My Spirit! Be thou me, impetuous one!

Drive my dead thoughts over the universe
Like withered leaves to quicken a new birth!
And, by the incantation of this verse

Scatter, as from an unextinguished hearth
Ashes and sparks, my words among mankind!
Be through my lips to unawakened earth

The trumpet of a prophecy! O, Wind,
If Winter comes, can Spring be far behind?

Introductory Statement. Shelley wrote this poem during his sojourn in Italy. He had been walking by the River Arno, in the wood skirting it, and had watched the rising clouds ushering in the yearly storm which is the beginning of the autumn rains in Italy. As we study the poem we shall see how the confusion and violence of the rising tempest awoke in his own soul a similar outburst, manifested in a storm of feeling, and how the wind became to him a living spirit.

In form, the poem has five units, each of which has five subdivisions. Each unit develops a theme, but each is an essential step in the development of the central idea of the poem.

First Unit. The first unit, beginning with a stirring invocation to the West Wind, pictures the tempest rushing through the forest and driving before it the dead leaves. The atmosphere of these lines is that of the weirdness often felt when a storm is gathering. Note how the poet, by a magic use of words, has produced this feeling! How grim and ghostly are his phrases — "unseen presence," "dead," "ghosts," "enchanter," "pale," "hectic red," "pestilence-stricken," "wintry bed," "corpse within its grave." These are combined in such a manner as to create a vivid picture of the leaves flying before the wind like ghosts pursued by an invisible enchanter. Note that in the first five lines we have suggested death, terror and disease. What words or phrases do you consider the most suggestive?

In line 6 we begin a new chain of thought, and the wind is regarded as a Wild Spirit that bears the wingèd seeds to their graves. What is there especially apt in the word "wingèd"? Now the poet gives us a charming picture of the awakening that comes in the spring, when the seeds, lying through the winter like corpses in the grave, are rekindled to life. Note the smoothness and melody in lines 10-12, and the happy choice of words and pleasing figures.

Why is the Spring Wind called the "azure sister" of the West Wind? Is it more effective to speak of the plain and hill being filled with living hues and odors, than to say that sweet and brightly-colored flowers cover them? Do you see why the wind is saluted both as a Destroyer and a Preserver?

Second Unit. In the second unit the poet describes what he sees in the sky, which becomes to him a great forest through which the wind is surging. In this unit we have suggested the violence of the storm in its gathering force—the thought is more rapid, with each subdivision merging into the next, and the figures are more daring and complicated.

First, the poet sees the sky as a great forest in which the rushing clouds are the leaves, these leaves being shaken down from the "tangled boughs of Heaven" upon the stream of the wind. Thus the wind is likened to a great river surging through the forest of the sky. Next, he likens the manifestations of the approaching storm to the uplifted locks of fierce Mænads—the latter being the loose clouds flying before the wind. A Mænad, in classic mythology, was a frenzied attendant of the wine god, Bacchus.

Again the picture changes, but becomes even more magnificently daring.

The clouds are seen as a pageant of the burial of the year, with the night the dome of its vast sepulcher, and the wind itself the dirge of the year.

Do you find the words in the last four lines suggestive of the loud tumult and commotion of a great storm? Line 28 and line 10 offer what contrast? Is the wind presented in this unit as the Destroyer only?

Third Unit. In the third unit the storm is transferred to the Mediterranean. Note how gently and quietly the unit begins, and the pleasing words in the first half. "Lulled by the coil of his crystalline streams" is a charming line. Does it suggest by its sound the picture in the poet's mind?

The wind is described as awakening the quiet waters in Baiæ's bay; then, gathering in intensity, it sweeps on to the Atlantic. Now the ocean becomes the forest, cleaving itself into chasms before the fury of the wind, while far below the sea-blooms and the woods of ocean grow gray with fear. A note appended to the poem, in an authoritative edition of Shelley's works, throws interesting light on the concluding lines of the stanza: "The phenomenon alluded to at the conclusion of the third stanza is well known to naturalists. The vegetation at the bottom of the sea, of rivers, and of lakes, sympathizes with that of the land in the change of seasons, and is consequently influenced by the winds which announce it."

In the first lines is the wind the Destroyer or Preserver? How about the concluding lines?

Fourth Unit. In the fourth unit comes a direct personal note—a prayer to the mighty wind whose strength has so impressed the poet. But even with this personal note, Shelley does not relinquish his former pictures. He thinks of himself as the dead leaf of the forest, the swift cloud of the sky, the panting wave of the ocean. His boyhood strength has left him, and he prays in his weakness to be lifted, again reverting to the previous images, as a wave, a leaf, a cloud. The last line has a pathos in its characterization of Shelley that cannot be appreciated by the casual reader.

Fifth Unit. In the last unit the poet reverts to the main image and the principal emotion of the poem. He thinks now of himself as the forest, and his thoughts are the leaves, many of which have withered and died. The thought of the wind as Preserver now becomes triumphantly dominant, and in the splendid climax of the poem the poet calls on the wind to be himself, driving his dead thoughts over the universe to quicken a new birth in mankind.

Be through my lips to unawakened earth
The trumpet of a prophecy! Oh, Wind,
If Winter comes, can Spring be far
behind?

One of our critics has summarized the ode in these fitting words:

"The last thought has now been reached, the last realm over which the wind is sweeping. It has passed through the forests of earth, through the clouds of the sky, into the depths of ocean, through the woods and sky and ocean of Shelley's heart; and then, at the very point and climax of emotion, it leaves himself and sweeps through all mankind, bearing away with it dead things and the seeds of new. Out of the personal, Shelley passes into the universal, and at that moment the future opened to him. Beyond the storm, beyond the winter it ushers in, he sees the new-awakened world, the birth of all the seeds, the outburst as of a spring in humanity."

When the poem has been studied in some such manner as this, it can be read and reread with unceasing pleasure. It is not intended that the above be construed as a set form of analysis. These suggestions are offered as a basis for the study of a lyric, and the intelligent student will modify them in a way best adapted to his needs. The study of poetic language, however, is always an aid in the enjoyment of poetry, especially

when, as in Shelley's ode, the language of the poem is so in harmony with its mood and theme.

The following lyrical poems are excellent for study:

William Cullen Bryant

Thanatopsis
To a Waterfowl
The Death of the Flowers
To the Fringed Gentian
The Conqueror's Grave

Robert Burns

To a Mouse
To a Daisy
To Mary in Heaven
Highland Mary

Elizabeth Barrett Browning

The Cry of the Children

Ralph Waldo Emerson

Each and All
The Rhodora
The Snow-Storm
Terminus
Concord Hymn

Oliver Wendell Holmes

The Chambered Nautilus
The Voiceless
The Last Leaf
The Living Temple

Sidney Lanier

The Marshes of Glynn
Song of the Chattahoochee

Henry Wadsworth Longfellow

Hymn to the Night
My Lost Youth
The Beleaguered City
Resignation

James Russell Lowell

Commemoration Ode

Edgar Allan Poe

The Raven
Lenore
The Haunted Palace
The Bells
Annabel Lee
Ulalume

Percy Bysshe Shelley

The Cloud
To a Skylark

Alfred Tennyson

Sir Galahad
Songs from The Princess
Tears, Idle Tears
Bugle Song
Home They Brought Her Warrior Dead
Crossing the Bar

William Wordsworth

Tintern Abbey
The Solitary Reaper
I Wandered Lonely as a Cloud

LITERATURE IN SCHOOL

Value. Selections of the best authors, when carefully chosen and properly presented to the pupils, are of the greatest value in the development of character. They tend to sooth the ardent passions of youth; they set before the pupils high ideals of life; and they fill their minds with noble thoughts which become more and more precious as the experiences of later years enrich their meaning. Moreover, the study of literary masterpieces affords the best possible means of giving culture to language.

Choice of Selections. The selections should be chosen with care.

1. They should always be such as can be readily understood by the pupils.

2. They should appeal to child life. Children enjoy beautiful word pictures which they can understand, selections expressing sympathy for other children, and especially selections full of action.

3. They should be of good literary quality.

Type Study. As a type study upon whose plan many similar studies can be based, we furnish one of Lowell's sweetest poems. It is universally loved by children.

The First Snow-Fall

The snow had begun in the gloaming,
And busily all the night
Had been heaping field and highway
With a silence deep and white.

Every pine and fir and hemlock
Wore ermine too dear for an earl,
And the poorest twig on the elm-tree
Was ridged inch deep with pearl.

From sheds new-roofed with Carrara
Came Chanticleer's muffled crow;
The stiff rails were softened to swan's-down,
And still fluttered down the snow.

I stood and watched by the window,
The noiseless work of the sky,
And the sudden flurries of snow-birds,
Like brown leaves whirling by.

I thought of a mound in sweet Auburn
Where a little headstone stood,—
How the flakes were folding it gently,
As did robins the babes in the wood.

Up spoke our own little Mabel,
Saying "Father, who makes it snow?"
And I told of the good All-father
Who cares for us here below.

Again I looked at the snow-fall,
And thought of the leaden sky
That arched o'er our first great sorrow,
When that mound was heaped so high.

I remembered the gradual patience
That fell from that cloud like snow,
Flake by flake, healing and hiding
The scar that renewed our woe.

And again to the child I whispered,
"The snow that husheth all,
Darling, the merciful Father
Alone can make it fall!"

Then, with eyes that saw not, I kissed her;
And she, kissing back, could not know
That *my* kiss was given to her sister,
Folded close under deepening snow.

Teacher's Preparation. 1. Read the biography of James Russell Lowell in THE HOME AND SCHOOL REFERENCE WORK, page 1708.

2. Make a thorough study of the poem for the following purposes:

(a) To become thoroughly imbued with its spirit.

(b) To discover the divisions of thought in the poem and note the stanzas included in each division.

(c) To discover all words and figures whose meaning may not be clear to the pupils.

(d) To discover concrete illustrations for making these meanings clear.

(e) To discover the pictures in the poem so as to be able to help the children see them.

3. Become familiar with the circumstances under which the poem was written, so that you can tell the pupils the story of the poem. Unless these circumstances are known, some passages in the poem are not as readily understood.

4. Read *She Came and Went* and *The Changeling* by the same author, and compare them with *The First Snow-Fall*.

What prompted Lowell to write these poems?

Story of the Poem. In 1844 Lowell married Miss Maria White, a highly cultured and gifted lady who had written a number of meritorious poems. They lived in Elmwood, the old Lowell residence in Cambridge, Mass. At this time the surrounding land had not been occupied by dwellings, and Mount Auburn, one of the most beautiful cemeteries in New England, was visible from the Lowell home.

Several children were born to Mr. and Mrs. Lowell, but with the exception of one daughter they all died at an early age. *The First Snow-Fall* was written soon after the death of their first child, Blanche.

The poem shows Lowell's loving and sympathetic nature and his love for children. *She Came and Went* and *The Changeling* are in the same vein.

Study by the Class. 1. Tell the story of the poem as outlined above. Combine with this such incidents in the poet's life as will interest the class, and then direct them to read a short sketch of Lowell's life.

2. Have the pupils read the poem through to get an idea of it as a whole.

3. Divide the poem into divisions according to thought. These are:

(a) Description of the storm, stanzas 1 to 4.

(b) The author's reflections, stanzas 5 to 8.

(c) The answer to Mabel's question, stanzas 9 and 10.

4. Study of the first division.

(a) See that the pupils understand the meaning of all the words. Such words as "gloaming," "ermine," "earl," "pearl," "Carrara" and "Chanticleer" will probably need explanation.

(b) To what things is the snow compared in these stanzas?

Why is ermine used with pine, fir and hemlock, and pearl with the twig of the elm?

Why is Carrara used with the shed roof?

What rails "were softened to swan's down"?

What color are snow-birds?

(c) Can you see the beautiful pictures in these stanzas?

(d) After these stanzas have been studied in this way, let the pupils read them to express the meaning.

5. Study of the second division.

(a) See that the pupils understand the references to "sweet Auburn" and "the babes in the wood."

(b) The thought in stanzas 7 and 8 may need some explanation. What is meant by the "leaden sky" and "the gradual patience that fell from that cloud like snow"?

What was "the scar that renewed our woe"?

(c) After all expressions are understood, proceed with this division as with the first.

6. Study of the third division.

Only one expression in this division needs explanation; that is found in the first line of the last stanza.

Two explanations are admissible. The father's eyes were filled with tears so that he could not see Mabel, though holding her in his arms; or he was so occupied with the thought of the child who had died that he looked beyond the child in his arms to the cemetery.

7. Have the class read the poem as a whole.

8. Have the pupils memorize the poem

You cannot afford to buy books? Can you afford carpets on your floors, feathers on your bonnets, sweetmeats on your tables, seats in the gallery at the theatre? Then you can afford to buy books. You might far better live in a house with bare floors and dispense with many of those luxuries of food and dress that every mechanic and laboring man contrives to get, than to deny yourself books. When it comes to be understood that books are necessaries of life—indispensable furnishings of every adequate home—even the poorest people will find ways of purchasing them.

—Washington Gladden.

GEMS OF POETRY

The selections here given are representative of enduring poetry written by American and British poets. All are worthy of memorizing. We have included poems by some of the newer writers, as well as those of an earlier period.

HYMN TO THE NIGHT

I heard the trailing garments of the Night
Sweep through her marble halls!
I saw her sable skirts all fringed with light
From the celestial walls!

I felt her presence, by its spell of might,
Stoop o'er me from above;
The calm, majestic presence of the Night,
As of the one I love.

I heard the sounds of sorrow and delight,
The manifold, soft chimes,
That fill the haunted chambers of the Night,
Like some old poet's rhymes.

From the cool cisterns of the midnight air
My spirit drank repose;
The fountain of perpetual peace flows there,—
From those deep cisterns flows.

O holy Night! from thee I learn to bear
What man has borne before!
Thou layest thy finger on the lips of Care,
And they complain no more.

Peace! Peace! Orestes-like I breathe this prayer!
Descend with broad-winged flight,
The welcome, the thrice-prayed-for, the most fair,
The best-beloved Night!

—*Longfellow.*

As the bird trims her to the gale,
I trim myself to the storm of time,
I man the rudder, reef the sail,
Obey the voice at eve obeyed at prime:
"Lowly faithful, banish fear,
Right onward drive unharmed;
The port, well worth the cruise, is near,
And every wave is charmed."

—Emerson, *Terminus.*

THE RHODORA

In May, when sea-winds pierced our solitudes,
I found the fresh Rhodora in the woods,
Spreading its leafless blooms in a damp nook,
To please the desert and the sluggish brook.
The purple petals, fallen in the pool,
Made the black water with their beauty gay;
Here might the red-bird come his plumes to cool,
And court the flower that cheapens his array.
Rhodora! if the sages ask thee why
This charm is wasted on the earth and sky,
Tell them, dear, that if eyes were made for seeing,
Then Beauty is its own excuse for being:
Why thou wert there, O rival of the rose!
I never thought to ask, I never knew:
But, in my simple ignorance, suppose
The self-same Power that brought me there brought you.

—*Emerson.*

The sexton, tolling his bell at noon,
Deems not that great Napoleon
Stops his horse, and lists with delight
Whilst his files sweep round yon Alpine height;
Nor knowest thou what argument
Thy life to thy neighbor's creed has lent.

—Emerson, *Each and All.*

A STANZA ON FREEDOM

They are slaves who fear to speak
For the fallen and the weak;
They are slaves who will not choose
Hatred, scoffing, and abuse,
Rather than in silence shrink
From the truth they needs must think;
They are slaves who dare not be
In the right with two or three.

—*Lowell.*

So shalt thou rest, and what if thou withdraw
In silence from the living, and no friend
Take note of thy departure? All that breathe
Will share thy destiny. The gay will laugh
When thou art gone, the solemn brood of care
Plod on, and each one as before will chase
His favorite phantom; yet all these shall leave
Their mirth and their employments, and shall come
And make their bed with thee. As the long train
Of ages glides away, the sons of men—
The youth in life's fresh spring, and he who goes
In the full strength of years, matron and maid,
The speechless babe, and the gray-headed man—
Shall one by one be gathered to thy side,
By those, who in their turn shall follow them

—Bryant, *Thanatopsis.*

And what is so rare as a day in June?
Then, if ever, come perfect days;
Then Heaven tries earth if it be in tune,
And over it softly her warm ear lays;
Whether we look or whether we listen,
We hear life murmur or see it glisten;
Every clod feels a stir of might,
An instinct within it that reaches and towers,
And, groping blindly above it for light,
Climbs to a soul in grass and flowers;
The flush of life may well be seen
Thrilling back over hills and valleys;
The cowslip startles in meadows green,
The buttercup catches the sun in its chalice,
And there's never a leaf nor a blade too mean
To be some happy creature's palace;
The little bird sits at his door in the sun,
Atilt like a blossom among the leaves,
And lets his illumined being o'errun
With the deluge of summer it receives;
His mate feels the eggs beneath her wings,
And the heart in her dumb breast flutters and sings;
He sings to the wide world and she to her nest,—
In the nice ear of Nature which song is the best?

—Lowell, *The Vision of Sir Launfal.*

TO THE FRINGED GENTIAN

Thou blossom bright with autumn dew,
And colored with the heaven's own blue,
That openest when the quiet light
Succeeds the keen and frosty night,

Thou comest not when violets lean
O'er wandering brooks and springs unseen,
Or columbines, in purple dressed,
Nod o'er the ground-bird's hidden nest.

Thou waitest late and com'st alone,
When woods are bare and birds are flown,
And frost and shortening days portend
The aged year is near his end.

Then doth thy sweet and quiet eye
Look through its fringes to the sky,
Blue—blue—as if that sky let fall,
A flower from its cerulean wall.

I would that thus, when I shall see
The hour of death draw near to me,
Hope, blossoming within my heart,
May look to heaven as I depart.

—*Bryant.*

A LIFE-LESSON

There! little girl, don't cry!
They have broken your doll, I know;
And your tea-set blue,
And your play-house, too,
Are things of the long ago;
But childish troubles will soon pass by.—
There! little girl, don't cry!

There! little girl, don't cry!
They have broken your slate, I know;
And the glad, wild ways
Of your school-girl days
Are things of the long ago;
But life and love will soon come by.—
There! little girl, don't cry!

There! little girl, don't cry!
They have broken your heart, I know;
And the rainbow gleams
Of your youthful dreams
Are things of the long ago;
But Heaven holds all for which you sigh.—
There! little girl, don't cry!

—*James W. Riley.*

OLD IRONSIDES

Ay, tear her tattered ensign down!
Long has it waved on high,
And many an eye has danced to see
That banner in the sky;
Beneath it rung the battle shout,
And burst the cannon's roar;—
The meteor of the ocean air
Shall sweep the clouds no more.

Her deck, once red with heroes' blood,
Where knelt the vanquished foe,
When winds were hurrying o'er the flood,
And waves were white below,
No more shall feel the victor's tread,
Or know the conquered knee;
The harpies of the shore shall pluck
The eagle of the sea!

Or, better that her shattered hulk
Should sink beneath the wave;
Her thunders shook the mighty deep,
And there should be her grave;
Nail to the mast her holy flag,
Set every threadbare sail,
And give her to the god of storms,
The lightning and the gale!

—*Holmes.*

OPPORTUNITY

"Master of human destinies am I!
Fame, love, and fortune on my footsteps wait
Cities and fields I walk; I penetrate
Deserts and seas remote, and passing by
Hovel and mart and palace—soon or late
I knock unbidden once at every gate!

"If sleeping, wake—if feasting, rise before
I turn away. It is the hour of fate,
And they who follow me reach every state
Mortals desire, and conquer every foe
Save death; but those who doubt or hesitate,
Condemned to failure, penury, and woe,
Seek me in vain and uselessly implore.
I answer not, and I return no more!"

—*John James Ingalls.*

THE SONG OF THE CAMP

"Give us a song!" the soldiers cried,
The outer trenches guarding,
When the heated guns of the camps allied
Grew weary of bombarding.

The dark Redan, in silent scoff,
Lay, grim and threatening, under;
And the tawny mound of the Malakoff
No longer belched its thunder.

There was a pause. A guardsman said,
"We storm the forts tomorrow;
Sing while we may, another day
Will bring enough of sorrow."

They lay along the battery's side,
Below the smoking cannon:
Brave hearts, from Severn and from Clyde,
And from the banks of Shannon.

They sang of love, and not of fame;
Forgot was Britain's glory!
Each heart recalled a different name,
But all sang "Annie Laurie."

Voice after voice caught up the song,
Until its tender passion
Rose like an anthem, rich and strong,—
Their battle-eve confession.

Dear girl, her name he dared not speak,
But, as the song grew louder,
Something upon the soldier's cheek
Washed off the stains of powder.

Beyond the darkening ocean burned
The bloody sunset's embers,
While the Crimean valleys learned
How English love remembers.

And once again a fire of hell
Rained on the Russian quarters,
With scream of shot, and burst of shell,
And bellowing of the mortars!

And Irish Nora's eyes are dim
For a singer, dumb and gory;
And English Mary mourns for him
Who sang of "Annie Laurie."

Sleep, soldiers! still is honored rest
Your truth and valor wearing:
The bravest are the tenderest,—
The loving are the daring.

—*Bayard Taylor.*

Alas for him who never sees
The stars shine through his cypress-trees!
Who, hopeless, lays his dead away,
Nor looks to see the breaking day
Across the mournful marbles play!
Who hath not learned, in hours of faith,
The truth to flesh and sense unknown,
That Life is ever lord of Death,
And Love can never lose its own!

—*Whittier.*

THE FLIGHT OF YOUTH

There are gains for all our losses,
There are balms for all our pain:
But when youth, the dream, departs,
It takes something from our hearts,
And it never comes again.

We are stronger, and are better,
Under manhood's sterner reign:
Still we feel that something sweet
Followed youth, with flying feet,
And will never come again.

Something beautiful is vanished,
And we sigh for it in vain:
We behold it everywhere,
On the earth, and in the air,
But it never comes again.

—*Richard Henry Stoddard.*

TURN O' THE TIDE

The tide flows in to the harbor—
The bold tide, the gold tide, the flood of the sunlit sea—
And the little ships riding at anchor
Are swinging and slanting their prows to the ocean, panting
To lift their wings to the wild wide air
And venture a voyage they know not where—
To fly away and be free!

The tide runs out of the harbor—
The slow tide, the low tide, the ebb of the moonlit bay—
And the little ships rocking at anchor
Are rounding and turning their bows to the landward, yearning
To breathe the breath of the warm sweet strand
And rest in the sight of the high hill land—
To hold their haven and stay!

My heart goes round with the vessels—
My wild heart, my child heart, in love with the sea and land—
And the turn o' the tide passes through it,
In rising and falling with mystical currents, calling
At morn to range where the far waves foam,
At night to a harbor in love's true home,
With the hearts that understand!

—*Henry Van Dyke.*

THE IMMANENT ONE

A fire mist and a planet,
A crystal and a cell,
A jelly-fish and a saurian
And caves where the cave men dwell;
Then a sense of law and beauty,
And a face turned from the clod—
Some call it Evolution,
And others call it God.

A haze in the far horizon,
The infinite, tender sky,
The ripe, rich tint of the corn-fields,
And the wild geese sailing high—
And all over upland and lowland
The charm of the goldenrod—
Some of us call it Autumn,
And others call it God.

Like tides on a crescent sea beach
When the moon is low and thin,
Into our heart's high yearnings
Come welling and surging in—
Come from the mystic ocean,
Whose rim no foot has trod—
Some of us call it Longing,
And others call it God.

A picket, frozen on duty—
A mother starved for the brood—
Socrates drinking the hemlock,
And Jesus on the rood;
And millions who, humble and nameless,
The straight, hard pathway trod—
Some call it Consecration,
And others call it God.

—*William H. Carruth.*

The year's at the spring
And day's at the morn;
Morning's at seven;
The hillside's dew-pearled;
The lark's on the wing;
The snail's on the thorn:
God's in his heaven—
All's right with the world!

—Browning, *Pippa Passes.*

Grow old along with me!
The best is yet to be,
The last of life, for which the first was made;
Our times are in his hand
Who saith, "A whole I planned,
Youth shows but half; trust God: see all,
nor be afraid!

—Browning, *Rabbi Ben Ezra.*

Cowards die many times before their deaths;
The valiant never taste of death but once.
Of all the wonders that I yet have heard,
It seems to me most strange that men should
fear,
Seeing that death, a necessary end,
Will come when it will come.

—*Shakespeare.*

SONNET

Full many a glorious morning have I seen
Flatter the mountain-tops with sovereign eye,
Kissing with golden face the meadows green,
Gilding pale streams with heavenly alchemy.
Anon permit the basest clouds to ride
With ugly rack on his celestial face,
And from the forlorn world his visage hide,
Stealing unseen to west with this disgrace.

—*Shakespeare.*

LYRICS OF SPRING

II

Oh, well the world is dreaming
Under the April moon,
Her soul in love with beauty,
Her senses all a-swoon.

Pure hangs the silver crescent
Above the twilight wood,
And pure the silver music
Wakes from the marshy flood.

O earth, with all thy transport
How comes it life should seem
A shadow in the moonlight
A murmur in a dream?

III

Over the wintry threshold
Who comes with joy to-day,
So frail, yet so enduring,
To triumph o'er dismay?

Ah, quick her tears are springing,
And quick they are dried,
For sorrow walks before her,
But gladness walks beside.

She comes with gusts of laughter,—
The music as of rills;
With tenderness and sweetness,
The wisdom of the hills.

Her hands are strong to comfort,
Her heart is quick to heed;
She knows the signs of sadness,
She knows the voice of need;

There is no living creature
However poor or small,
But she will know its trouble,
And hearken to its call.

Oh, well they fare forever,
By mighty dreams possest,
Whose hearts have lain a moment
On that eternal breast.

—*Bliss Carman.*

None ever climbed to mountain height of song,
But felt the touch of some good woman's
palm;
None ever reached God's altitude of calm,
But heard one voice cry, "Follow!" from the
throng.

—Gilbert Parker, *A Woman's Hand.*

DAFFODILS

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host, of golden daffodils;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Continuous as the stars that shine
  And twinkle on the milky way,
They stretched in never-ending line
  Along the margin of a bay;
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance.

The waves beside them danced, but they
  Outdid the sparkling waves in glee;
A poet could not but be gay
  In such a jocund company.
I gazed—and gazed—but little thought
What wealth the show to me had brought.

For oft, when on my couch I lie,
  In vacant or in pensive mood,
They flash upon that inward eye
  Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils.

—William Wordsworth.

THE LARK

Bird of the wilderness,
  Blithesome and cumberless,
Sweet be thy matin o'er moorland and lea!
  Emblem of happiness,
  Blest is thy dwelling-place:
O to abide in the desert with thee!
  Wild is thy lay, and loud,
  Far in the downy cloud;
Love gives it energy—love gave it birth!
  Where, on thy dewy wing—
  Where art thou journeying?
Thy lay is in heaven,—thy love is on earth.

O'er fell and fountain sheen,
  O'er moor and mountain green,
O'er the red streamer that heralds the day;
  Over the cloudlet dim,
  Over the rainbow's rim,
Musical cherub, soar, singing, away!
  Then, when the gloaming comes,
  Low in the heather blooms,
Sweet will thy welcome and bed of love be!
  Emblem of happiness,
  Blest is thy dwelling-place—
O to abide in the desert with thee!

—James Hogg.

BUGLE SONG

The splendor falls on castle walls
  And snowy summits old in story:
The long light shakes across the lakes,
  And the wild cataract leaps in glory.
Blow, bugle, blow, set the wild echoes flying,
Blow, bugle; answer echoes, dying, dying,
  dying.

O hark, O hear! how thin and clear,
  And thinner, clearer, farther going!
O sweet and far from cliff and scar
  The horns of Elfland faintly blowing!
Blow, let us hear the purple glens replying:
Blow, bugle; answer, echoes, dying, dying,
  dying.

O love, they die in yon rich sky,
  They faint on hill or field or river:
Our echoes roll from soul to soul,
  And grow for ever and for ever.
Blow, bugle, blow, set the wild echoes flying,
And answer, echoes, answer, dying, dying,
  dying.

—Tennyson.

SWEET AND LOW

Sweet and low, sweet and low,
  Wind of the western sea,
Low, low, breathe and blow!
  Wind of the western sea!
Over the rolling waters go,
Come from the dying moon, and blow,
  Blow him again to me;
While my little one, while my pretty one,
  sleeps.

Sleep and rest, sleep and rest,
  Father will come to thee soon;
Rest, rest, on mother's breast,
  Father will come to thee soon;

Father will come to his babe in the nest,
Silver sails all out of the west
  Under the silver moon:
Sleep, my little one, sleep, my pretty one,
  sleep.

—Tennyson.

TEARS, IDLE TEARS

Tears, idle tears, I know not what they
  mean,
Tears from the depth of some divine despair
Rise from the heart, and gather to the eyes,
In looking on the happy Autumn-fields,
And thinking of the days that are no more.

Fresh as the first beam glittering on a sail,
That brings our friends up from the under-
  world,
Sad as the last which reddens over one
That sinks with all we love below the verge;
So sad, so fresh, the days that are no more.

Ah, sad and strange as in dark summer
  dawns
The earliest pipe of half-awaken'd birds
To dying ears, when unto dying eyes
The casement slowly grows a glimmering
  square;
So sad, so strange, the days that are no more.

Dear as remember'd kisses after death,
And sweet as those by hopeless fancy feign'd
On lips that are for others; deep as love,
Deep as first love, and wild with all regret;
O Death in Life, the days that are no more.

—Tennyson.

BREAK, BREAK, BREAK

Break, break, break,
On thy cold, gray stones, O Sea!
And I would that my tongue could utter
The thoughts that arise in me.

O well for the fisherman's boy,
That he shouts with his sister at play!
O well for the sailor lad,
That he sings in his boat on the bay!

And the stately ships go on
To their haven under the hill;
But O for the touch of a vanished hand,
And the sound of a voice that is still!

Break, break, break,
At the foot of thy crags, O Sea!
But the tender grace of a day that is dead
Will never come back to me.

—*Tennyson.*

CROSSING THE BAR

Sunset and evening star,
And one clear call for me!
And may there be no moaning of the bar,
When I put out to sea,

But such a tide as moving seems asleep,
Too full for sound and foam,
When that which drew from out the boundless deep
Turns again home.

Twilight and evening bell,
And after that the dark!
And may there be no sadness of farewell,
When I embark;

For tho' from out our bourne of Time and Place
The flood may bear me far,
I hope to see my Pilot face to face
When I have crossed the bar.

—*Tennyson.*

SONG

Oh! that we two were Maying
Down the stream of the soft spring breeze;
Like children with violets playing
In the shade of the whispering trees.

Oh! that we two sat dreaming
On the sward of some shee-trimm'd down,
Watching the white mist steaming
Over river and mead and town.

Oh! that we two lay sleeping
In our nest in the churchyard sod,
With our limbs at rest on the quiet earth's breast,
And our souls at home with God.

—*Charles Kingsley.*

THE IVY GREEN

Oh, a dainty plant is the Ivy green,
That creepeth o'er ruins old!
Of right choice food are his meals I ween,
In his cell so lone and cold.
The wall must be crumbled, the stone decayed,
To pleasure his dainty whim;
And the mouldering dust that years have made
Is a merry meal for him.
Creeping where no life is seen,
A rare old plant is the Ivy green.

Fast he stealeth on, though he wears no wings,
And a staunch old heart has he.
How closely he twineth, how tight he clings
To his friend the huge Oak Tree!
Then slily he traileth along the ground,
And his leaves he gently waves,
As he joyously hugs and crawleth round
The rich mould of dead men's graves.
Creeping where grim death has been,
A rare old plant is the Ivy green.

Whole ages have fled and their works decayed,
And nations have scattered been;
But the stout old Ivy shall never fade,
From its hale and hearty green.
The brave old plant, in its lonely days,
Shall fatten upon the past:
For the stateliest building man can raise
Is the Ivy's food at last.
Creeping on, where time has been,
A rare old plant is the Ivy green.

—*Dickens.*

Oh, East is East, and West is West, and never the twain shall meet,
Till Earth and Sky stand presently at God's great Judgment Seat;
But there is neither East nor West, Border nor Breed, nor Birth,
When two strong men stand face to face, tho' they come from the ends of the earth!

—*Kipling.*

Soldier, rest! thy warfare o'er,
Sleep the sleep that knows not breaking;
Dream of battled fields no more,
Days of danger, nights of waking.
In our isle's enchanted hall,
Hands unseen thy couch are strewing,
Fairy strains of music fall,
Every sense in slumber dewing.
Soldier, rest! thy warfare o'er,
Dream of fighting fields no more;
Sleep the sleep that knows not breaking
Morn of toil, nor night of waking.

—Scott, *Soldier, Rest!*

Happy, happy time, when the white star hovers
Low over dim fields fresh with bloomy dew.
Near the face of dawn, that draws athwart the darkness,
Threading it with color, as yewberries the yew.

Thicker crowd the shades while the grave East deepens
Glowing, and with crimson a long cloud swells.
Maiden still the morn is; and strange she is, and secret;
Strange her eyes; her cheeks are cold as cold sea-shells.

—George Meredith, *Love in the Valley.*

THE TIGER

Tiger! Tiger! burning bright,
In the forests of the night;
What immortal hand or eye
Could frame thy fearful symmetry?

In what distant deeps or skies
Burned the fire of thine eyes?
On what wings dare he aspire?
What the hand dare seize the fire?

And what shoulder, and what art,
Could twist the sinews of thine heart?
And when thy heart began to beat,
What dread hand? and what dread feet?

What the hammer, what the chain?
In what furnace was thy brain?
What the anvil? what dread grasp
Dare its deadly terrors clasp?

When the stars threw down their spears,
And watered heaven with their tears,
Did he smile his work to see?
Did He, Who made the Lamb, make thee?

Tiger! Tiger! burning bright,
In the forests of the night,
What immortal hand or eye
Dare frame thy fearful symmetry?

—*William Blake.*

THE STORMY PETREL

A thousand miles from land are we,
Tossing about on the roaring sea;
From billow to bounding billow cast,
Like fleecy snow on the stormy blast:
The sails are scatter'd abroad, like weeds,
The strong masts shake like quivering reeds,
The mighty cables, and iron chains,
The hull, which all earthly strength disdains,
They strain and they crack, and hearts like stone
Their natural hard, proud strength disown.

Up and down! Up and down!
From the base of the wave to the billow's crown,
And midst the flashing and feathery foam
The Stormy Petrel finds a home,—
A home, if such a place may be,
For her who lives on the wide, wide sea,
On the craggy ice, in the frozen air,
And only seeketh her rocky lair
To warm her young, and to teach them spring
At once o'er the waves on their stormy wing.

O'er the Deep! O'er the Deep!
Where the whale, and the shark, and the sword-fish sleep,
Outflying the blast and the driving rain,
The Petrel telleth her tale—in vain;
For the mariner curseth the warning bird
Who bringeth him news of the storms unheard!
Ah! thus does the prophet, of good or ill,
Meet hate from the creatures he serveth still:
Yet he ne'er falters:—So, Petrel! spring
Once more o'er the waves on thy stormy wing!

—*Bryan Waller Procter.*

A PASSER-BY

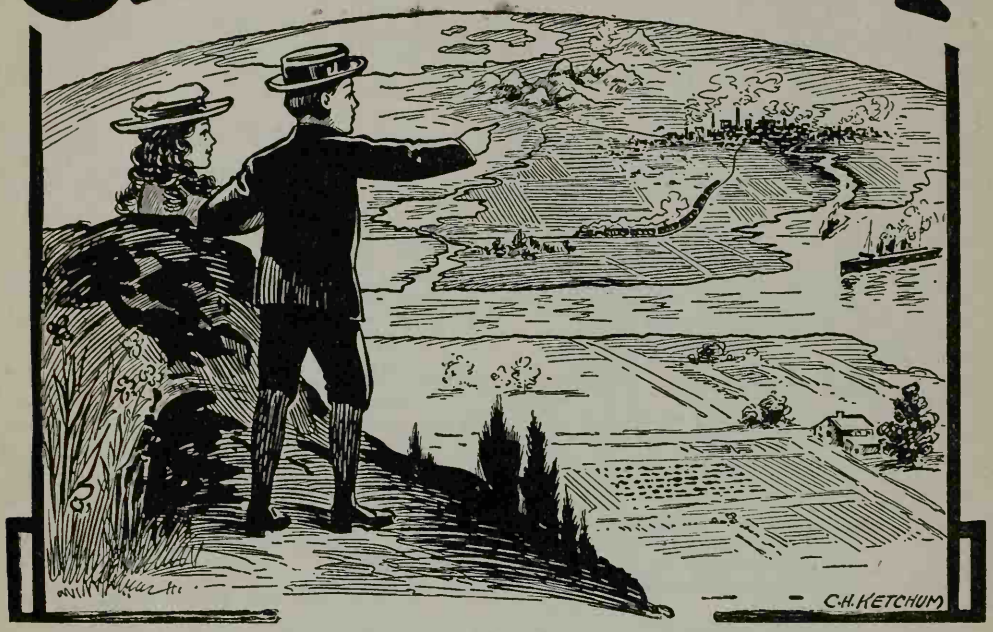
Whither, O splendid ship, thy white sails crowding,
Leaning across the bosom of the urgent West,
That fearest nor sea rising, nor sky clouding,
Whither away, fair rover, and what thy quest?
Ah! soon, when Winter has all our vales opprest,
When skies are cold and misty, and hail is hurling,
Wilt thou glide on the blue Pacific, or rest
In a summer haven asleep, thy white sails furling.

I there before thee, in the country so well thou knowest,
Already arriv'd, am inhaling the odorous air;
I watch thee enter unerringly where thou goest,
And anchor queen of the strange shipping there,
Thy sails for awnings spread, thy masts bare;
Nor is aught, from the foaming reef to the snow-capp'd, grandest
Peak that is over the feathery palms, more fair
Than thou, so upright, so stately, and still thou standest.

And yet, O splendid ship, unhail'd and nameless,
I know not if, aiming a fancy, I rightly divine
That thou hast a purpose joyful, a courage blameless,
Thy port assur'd in a happier land than mine.
But for all I have given thee, beauty enough is thine,
As thou, aslant with trim tackle and shrouding,
From the proud nostril curve of a prow's line
In the offing scatterest foam, thy white sails crowding.

—*Robert Bridges.*

GEOGRAPHY



Geography should be the most fascinating of studies, since it enables one in imagination to visit other lands. For such a traveler palm trees wave in southern climes, icebergs float in Arctic seas, and the panorama of foreign life,—strange manners and customs, mountain ranges, fertile valleys, forest-clad plains pass in review; immediate surroundings are lost in a greater whole and one's mental horizon expands to embrace the world.

A Present Need

The practical needs of the present are urgent and we are assigning new values to many educational branches; so it is that a higher importance is assigned to geography. We are no longer living an isolated life in America; we are vitally concerned in European affairs; we need a more intimate acquaintance with South America, and our fortunes are seen to be linked with those of the nations facing the Pacific on the west. As never before, we must study the world, its nations, cities and people; for fate weaves the affairs of the present in a loom, the warp threads of which run to all lands.

An Ideal for Which to Work

What methods shall the homes and schools of our land adopt to give to the study of geography such a degree of interest that it will constitute a natural unfolding of home knowledge that shall keep pace with the pupil's years, with which he shall compare items of daily knowledge noticed in papers and books: in short, that shall be as a pleasant path up the heights of knowledge, with a constantly increasing breadth of vision that shall expand from his immediate home surrounding until it embraces the world? That should be the ideal before all homes

and teachers who are privileged to direct the unfolding mind of children.

Home the Starting Point

It is now recognized that the home should be the center from which travels into various fields of knowledge should start; for home life and surroundings paint the foreground of every mental picture the little ones form. So, in geography the movement should be from the home and home neighborhood outward to the county, to the state, then to the surrounding states, to the United States and to North America as a whole; later to Europe and the rest of the world.

First Step

The first steps in geography are intimately connected with nature study, and nature rambles can be made instructive in a geographical way. We must, however, beware of making them too technical. The winding brook, crossed on the way, has the same lesson for the child that a river presents to a more mature mind. Here the creek has laid down a sand bar; there it is eating its banks away; it may have a small valley that, perhaps, is a part of a still larger one, and it may be that as it courses down from higher levels it tumbles over ledges of rock. Almost without effort the child is prepared to understand the work of rivers on a larger scale.

Home Geography In Cities

Work essentially of this character is not out of reach of city homes and schools. The director of the Brooklyn Training School says: "It is surprising, when one seeks for it, to find so much of nature in the heart of a large city. Field lessons are not necessarily far afield, and are not difficult to give." The assertion is added that "all the essential lessons in home geography such as studies of plants and animals and the conditions of their life, rocks and soils, tillage and cultivation, land and water forms, etc., can be taught in the school yard, the street in front of the schools, a vacant lot nearby, in the school garden, on the school roof, in the nearest park" . . . In short, home geography can be made to throb with interest in the most congested city districts by the resourceful teacher. The sand box in the city playground can be made to illustrate all sorts of geographical facts.

Map Making

Scholars are perhaps living on farms or in small villages. In either case they might draw a crude map of their home surroundings. With but little assistance they will soon be able to draw a map of the farm, the farm buildings, the fields,—here a field of corn, there some potatoes. Even if it be crude they gain the idea of a map,—a representation on paper of a section of country. A sketch map of the course they take on the way from home to school can also be made; and then the school district can be taken up. With a little help they will soon be able to draw a surprisingly good map of the district,—showing the farm buildings, the bridges in the road, the old tree in the pasture. All this work is of value. When they can do this they can understand a map of the township, then of the county and finally of the state.

Ideas of the Earth as a Whole

It is considered necessary that very soon children should gain a somewhat clear concept of the earth as a whole, with its continental lands and wide-stretching ocean, but only a framework is needed. This is necessary because the child must feel before he mentally travels any great distance the outlines, at least, of that greater whole, the parts of which he is beginning to explore. It is not necessary to present the complete picture, simply the framework into which shall fit the varied material gathered in his journey outward from home. Details are to be left for advanced work.

Ideas as to Commercial Geography

The needs of modern life demand the exchange of products grown in widely

separated lands. Our wants have grown complex; only a vast system of international trade can satisfy them. A knowledge of the products of other lands, the means by which they are exchanged constitute one of the most valued departments of geographical study. In this, also, progress is from home surroundings. Pupils may live in a small town or perhaps in a rural community. In another part of the community is a coal mining town. Perhaps a railroad serves both towns. This will help them to understand the necessity for markets. The grain, live stock and coal are shipped away; back comes dry goods, boots and shoes, hardware and groceries. These can all be studied. Thus in countless ways elements of commercial geography can be imparted to children. There is a wealth of such material for city schools. The windows display foreign wares, in the markets are tropical fruits, drays are hauling the merchandise of the world through the streets. There are bridges, ferries, trains; perhaps ships from other lands are at the docks. All this material must be pressed into service.

1. The Newspaper. Have someone read a news item from a daily paper and see how many of those who listen can locate the places named.

Five or ten minutes a day spent in such an exercise will soon awaken a remarkable interest in this phase of geography and also enable those who participate to read with better understanding.

2. The Breakfast Table. Discuss the source from which the various articles on the breakfast or dinner table have come.

Where was the coffee raised? How did it reach the United States? How did we get it?

Where did the cream come from? The sugar?

What spices were used to season the food? Where do they grow?

Can you tell where the china was made?

Where was the flax for the table linen grown?

How many countries were drawn upon to supply the table?

Not all of these questions can be answered at once. But take one and then another from time to time until answers to all have been found. The research will create an interest in common things, and, what is more important, it will show how dependent civilized nations are upon each other.

When we have seen what we receive from other nations, let us ask this question: What do we in return contribute to their welfare?

This sort of study reaches far beyond the home or the schoolroom. It soon embraces world-wide interests, and thus exerts a broadening influence on all who engage in it. It requires but a moment's consideration for us to realize that before we can enjoy the ordinary comforts of life, there must be iron and coal mines, quarries, factories, railroads, steamships and numerous other establishments, aggregating millions of dollars in outlay and employing millions of men. "Civilized man draws upon the rest of the world for what he requires and gives to the rest of the world in return."

Business. Practically all industries are based upon geographical relations.

What are the industries in your immediate vicinity?

Why is Pittsburgh the largest center for the manufacture of plate glass in the country?

Why are the largest flour mills in the world located in Minneapolis?

What has made Chicago the greatest railroad center in the world?

The answers to these and many more similar questions that might be asked reveal the fact that the leading industry depends upon some geographic condition, as the presence of a high grade of sand and abundance of coal near Pittsburgh determined the location of glass manufactories. Study out the answers to the other questions yourself, and you will be strongly impressed with this relation.

Why are Minnesota and North Dakota known as wheat states, and Iowa and Illinois as corn states?

Why are so many sheep raised in Montana and Wyoming?

Why is Wisconsin a leading dairy state?

Climate and soil are the chief factors in determining the answers to these questions.

What is the chief commercial center in your own county?

What has made it so?

Has this center grown more rapidly than some other near by, which at first seemed to have an equal opportunity?

What caused the change?

What conditions does the merchant study before deciding upon a location?

Does he always decide upon the location which apparently will give him the largest volume of trade? Why?

Questions like these are constantly arising in business affairs, and they pertain almost entirely to geographic conditions. Geography has much greater significance than the school textbook ordinarily leads one to believe.

Geography, therefore, is a study of cause and effect, not a study of unrelated facts.

"Man and nature, man in nature, not man alone or nature alone, are the subjects of geography."

EXERCISES

The foregoing questions give rise to interesting problems for solution. Those relating to distant localities and touching upon large interests appeal alike to the young people and the older people of the household. Those of a local nature are within the grasp of the children.

1. **The Farm.** Unless one lives in the midst of a large city the agricultural conditions of the locality can be easily studied. Select a farm and study it with a view to answering the following questions:

What crops are raised?

What is the largest crop?

Why does the farmer make this his largest crop?

Does the farmer keep horses, cattle, sheep and hogs?

What use does he make of them?

What does the farmer sell?

Where does he sell it?

What does the farmer buy?

Does he buy anything that he could raise? If so, why?

Is the farmer in any sense a manufacturer?

What are the farmer's sources of profit?

It is obvious that the answers to these questions will depend upon the farm studied, and that general answers will not suffice. However, the study will show that the crops raised are determined by the kind of soil, the climate, which includes temperature and rainfall during the growing season, and opportunity for marketing the produce.

The leading crop will be that which yields the greatest profit, either directly or indirectly. Directly, if the product, as wheat, is sold outright; indirectly, if it is converted into something else which is sold.

In Iowa and Illinois farmers frequently feed their corn to cattle and hogs, which they sell for beef and pork. By this means the farmers frequently receive more for their corn than they would if it were sold outright.

In dairy states much corn is raised for ensilage, which is fed to milch cows. This crop is thus converted into milk and butter or cheese, from which the dairyman derives his profits.

Answers to the above questions require careful observation and the best use of the reasoning powers.

Make a plot of the farm showing the location of the farm buildings and the extent and location of the different crops and the areas used for pasturage.

WHAT YOU SHOULD KNOW ABOUT YOUR STATE

There are certain facts that every citizen should know about his own state. THE HOME AND SCHOOL REFERENCE WORK in its state articles has given these facts with remarkable clearness. It has not only done this but it has divided the articles by subheads, so that the reader

can find at once the specific information he is seeking. These subheads are logically arranged, and a uniform plan is followed in all state articles.

PLAN FOR THE STUDY OF A STATE

I. Position
   1. Group of States
   2. Boundaries

II. Size
   1. Length
   2. Breadth
   3. Area
   4. Comparisons

III. Population
   1. Inhabitants
   2. Rank
   3. Inhabitants per Square Mile

IV. Surface
   1. Highlands
   2. Lowlands
   3. Special Features

V. Rivers and Lakes

VI. Scenery

VII. Climate
   1. Temperature
   2. Rainfall
   3. Modifying Influences

VIII. Minerals and Mining

IX. Forest and Lumber

X. Agriculture
   1. Soil
   2. Products

XI. Manufactures

XII. Summer Resorts

XIII. Transportation and Commerce
   1. Waterways
   2. Railways
   3. Commercial Centers

XIV. Government

XV. Education
   1. Public Schools
   2. Higher Institutions

XVI. State Institutions

XVII. Cities

XVIII. History

XIX. Governors

SUGGESTIONS

In order that the reader may obtain the most help possible from these articles, the following suggestions, based on the article *Kansas*, are added:

I. **Location and Size.** The location is easily remembered when the bordering states are known, but size deals with figures, and these are not easily remembered by most people.

We learn by comparison. The size of one's state expressed in square miles or areas means but little, but if one, by comparing his state with others, learns how many times larger or smaller it is, he has a standard of comparison which shows the rank of that state in the Union as to area. Such comparisons are given in all state articles, but the reader is urged to make others for himself.

How many states the size of Rhode Island could be put into Kansas?

Which is the larger, Kansas or the New England States?

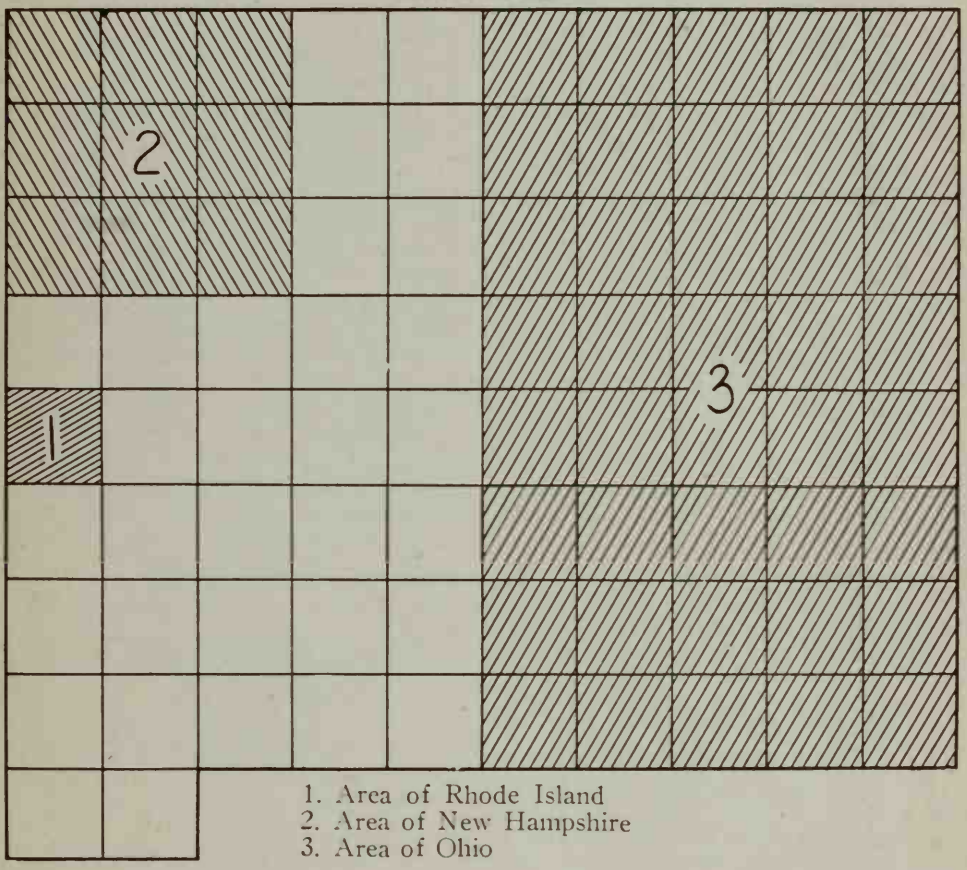
Learn the areas of these different states from their respective articles and compare.

A graphic illustration of comparative areas can be easily made as follows:

Construct a rectangle containing as many square units as there are thousands of square miles in the state. Allowing one-fourth of a square inch to represent 1000 square miles is a good proportion. According to this scale, a rectangle 4×5 inches will contain 80 units, or represent 80,000 square miles. Since the area of Kansas is approximately 82,000 square

miles, two units must be added. A little over one unit (1) will represent Rhode Island; nine units (2) will represent New Hampshire; 40 units (3) will represent Ohio. Areas representing other states can be added if desired, since there are 30 units, representing 30,000 square miles, still unoccupied. This plan is adaptable to almost any state. Its purpose is to show at a glance the comparative areas of the states used, and the diagram does not need to conform in outline to the form of the state.

AREA OF KANSAS



1. Area of Rhode Island
2. Area of New Hampshire
3. Area of Ohio

II. **Climate.** The subtopic *Climate* contains a concise statement of the climatic conditions of the state. If the reader wishes to learn the causes of these variations in temperature and rainfall, the articles *Climate, Meteorology, Rainfall, Wind* and *Weather Bureau* explain the causes and conditions which modify the climate of any locality. From these articles the reader learns that the winds laden with moisture from the Gulf of Mexico reach the eastern part of the state, and that the western part is visited by winds that come from beyond the Rocky Mountains; in passing over these mountains, the winds have most of their moisture taken from them. Altitude affects temperature; hence western Kansas has a lower average temperature than the eastern sections. Latitude also affects temperature; hence the northern part of the state has a lower mean temperature than the southern. Surface and climate should be studied together.

Climate affects production, so that the most densely populated part of the state is in the region of greatest rainfall. Were the entire state as densely populated as the eastern third there would be an average of more inhabitants to the square mile. How does this average compare with that of Oklahoma? See OKLAHOMA, subhead *Population*.

III. **Products.** The products of a state are of supreme importance, since upon them depends largely the prosperity of the people. A long list of names is seldom remembered as long as the time required to memorize it, but whatever appeals to the eye is fixed in the memory; therefore a graphic representation of the leading products of Kansas or any other state is of much greater value than written or printed lists. The graphic here shown does not pretend to be complete. Were all the products shown, the picture would be confusing, but by means of a striking presentation of the chief products, an indelible picture is formed upon the mind.

IV. **Additional Information.** But THE HOME AND SCHOOL REFERENCE WORK does not stop here. It gives under their respective titles a full description of the products shown in the picture. To illustrate, turn to the article *Corn,* where you find a comprehensive account of the greatest agricultural crop in the United States. In like manner, look up the article on every other product shown in the graphic. The combination of these articles with the study of a state enables the reader to gain boundless wealth of information from THE HOME AND SCHOOL REFERENCE WORK. Furthermore, this method of reading adds zest to the work and makes it doubly interesting. To show the extent to which this line of work can be carried, the following list of articles is given. All are closely identified with the products of Kansas:

Coal	Natural Gas
Lead	Petroleum
Salt	Cherry
Zinc	Peach
Corn	Pear
Kafir Corn	Plum
Oats	Grape
Wheat	Horse
Potato	Cattle
Sorghum	Dairy Husbandry
Rye	Beef
Barley	Meat Packing
Buckwheat	Hog
Broom Corn	Fowl, Domestic
Alfalfa	Creamery
Apple	Flour

V. **Application.** These suggestions on Kansas are typical and can be applied to any state. The reader can, if he desires, sketch other products into the graphic, or he can start anew and make a complete graphic according to his own ideas. This work is very fascinating to children in school, and is much more effective in teaching them the products of the state than the usual method given in textbooks.

Apply the following plan to the study of Michigan, page 1835. Use the same cross references as given for Kansas, and then look up other topics related to the state. The application of this method of study to each state will give one a thorough knowledge of the United States.

PLAN FOR THE STUDY OF MICHIGAN

I. Position

1. Group of States
2. Boundaries

II. Size

1. Length
2. Breadth
3. Area
4. Comparisons

III. Population

1. Inhabitants in 1910
2. Rank
3. Inhabitants per Square Mile

IV. Surface
   1. Highlands
   2. Lowlands
   3. Special Features

V. Rivers and Lakes

VI. Scenery

VII. Climate
   1. Temperature
   2. Rainfall
   3. Modifying Influences

VIII. Minerals and Mining

IX. Forest and Lumber

X. Agriculture
   1. Soil
   2. Products

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XII. Summer Resorts

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   1. Waterways
   2. Railways
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XIV. Government

XV. Education
   1. Public Schools
   2. Higher Institutions

XVI. State Institutions

XVII. Cities

XVIII. History

XIX. Governors

MENTAL TRAINING

Geography is one of the most useful subjects for training the mental powers. It brings into activity every mental process; it is related to every branch of natural science and to history. "It touches all phases of life," says an eminent authority.

The branch of education which touches the universe at the greatest number of points must be of the highest value in revealing to the individual the true meaning of life.—*Sutherland.*

Observation. In an informal and indefinite way the child begins the study of geography when he first becomes acquainted with his surroundings. When he enters school his field of observation is extended by the teacher.

In geography as in other subjects, observation will ultimately lead to classified knowledge.

In the beginning the pupil needs:

(1) to use with care his powers of sense perception;

(2) skillful direction that he may gain accurate and comprehensive knowledge of the facts observed.

The importance of gaining ideas at the outset cannot be overestimated, because it is from the ideas of those objects which the child observes that, later on, he constructs his mental images of objects that are unseen.

Suggestions. 1. By skillful questions direct the child's observation to what you wish him to see.

2. From his description make sure that he obtains correct ideas of the facts to which his attention has been called.

3. Repeat the exercise in varied form for several days in succession. Each successive observation helps to clarify and perfect the idea.

4. Avoid minute analysis with children in the primary grades.

5. In succeeding grades, gradually lead by questions and suggestions to the observation of more minute facts until the pupils form for themselves the habit of analysis. See chapter on *Nature Study*.

6. Begin this observation work with objects at hand—those in the school yard, about the home and what children see on their way to and from school.

7. As the pupil's ability increases, extend the work to include larger units.

This does not mean necessarily larger in area, but larger in ideas. Children from six to eight years of age, for instance, can grasp the large parts of a plant, as root, stem, leaves and flowers, but they would not readily grasp the ideas of surface included in near-by ground containing hills and valleys. They can grasp the idea of the brook or river as far as they can see it, but they must be older before they can gain a conception of the stream as a whole.

Caution. Do not crowd ideas upon the children faster than they can assimilate them. Much of the lack of interest and consequent drudgery connected with the study of geography is due to failure of the pupils to form correct geographic concepts in the lower grades. Without these concepts many of the terms used in the textbooks are meaningless to them, and geography thus becomes a dry and lifeless subject.

In the Mind's Eye. From knowledge at first hand obtained through observation the child must pass to the second stage—acquiring geographic ideas through symbols. He now turns to the textbook and works of reference and reads descriptions of places too remote for him to visit. His interest in the subject depends chiefly upon two things: his ability to understand the terms employed and the style in which the works are written. If through previous training the child has gained true concepts of geographic terms and the thought expressed is not beyond his mental capacity, his task is one of pleasure, and geography becomes to him a great source of delight. Guided by the description of the text, he builds his ideas into new pictures and sees in imagination many a distant land that he hopes to visit.

He follows the deer through the pine-clad forests of the North, basks in the shade of the luxuriant vegetation of the tropics, crosses the desert with the caravan, plows the pathless waves on the ocean liners and even accompanies the explorer into the inhospitable regions about the poles.

To the child whose foundation for this phase of geography has been properly prepared, these imaginary journeys are full of life and interest, and this line of study is among the best to train the imagination. But that the desired results may be secured, the work should be skillfully directed.

Suggestions. The following suggestions will be found helpful both to the teacher and the reader:

1. We can place into pictures formed by the imagination only those ideas already in the mind; therefore descriptions should be adapted to the capacity of the pupil or the reader. For instance, if he has no concept of a mountain, a description of the Rocky Mountains or of the Andes would mean but little to him.

2. Make use of pictures that are suited to explain the verbal descriptions. The pictures placed in first-class textbooks and works of reference are not placed there merely for ornament. Their chief purpose is to illustrate the text.

3. By skillful questioning, be sure that the pupils form right ideas from the descriptions in the text.

4. Require frequent reproduction, both oral and written. In these the pupil should express himself in his own language. Unless he can do this, he has not formed a clear idea of what he has read.

5. Make such use of collateral literature as will lend interest and pleasure to the work.

CAUSE AND EFFECT

From building mental pictures the child passes by natural and easy steps to the next stage in mental development—looking for causes; in other words he passes from descriptive to rational geography, and in this phase of the subject he meets problems requiring his greatest mental exertion, and in the solution of which his reasoning powers are taxed to the utmost. Until this stage is reached, the child's life has been spent in acquiring facts; he now learns that facts are

related to each other in logical sequence, or in the order of cause and effect, and looks to one fact to explain another.

There is, of course, no sharply dividing line between these stages of development. Simple relations are discerned in early years, but it is not until the child begins of his own accord to search for the explanation of facts that he can be said to have reached the cause and effect stage. If the teacher attempts to crowd this phase of the subject upon him before he is ready for it, he loses interest which he may not regain. Therefore, problems involving cause and effect should be approached with care.

Suggestions. The following suggestions will be found helpful:

1. At first call attention to the most obvious relations only. For instance, the child soon learns that water is necessary to the growth of plants. From this knowledge he soon discovers the relation of rainfall to vegetation, but it will be a long time before he can understand the reason for this relation. The solution of this problem calls for a knowledge of structural botany and some knowledge of the chemistry of soils.

2. So far as possible, let the child follow his own desires in discovering relations, occasionally guiding him with a question or suggestion.

3. Draw illustrations from local geography and lead the child to see how certain results become causes which make other results inevitable.

Illustrations. In our type study of Kansas this suggestion receives some attention, but the graphic *Illinois* brings out the thought still more clearly. Soil and climate make the raising of corn the most profitable and, therefore, the leading agricultural industry. In Illinois corn is king; therefore it is given prominence in the graphic.

The farmer, however, must find the best means of marketing his corn. Should he sell the entire crop from year to year, he would soon reduce the fertility of the soil to such a degree that it would not yield a profitable crop; hence he is practically forced to raise such stock as will most profitably consume a portion of the crop as fodder. We find, therefore, that raising corn compels the farmer to raise cattle and hogs for the market, and we group these animals about the corn.

Again, a large part of Illinois is underlaid with coal. The surface of the state is such that railways are easily constructed. The northeast corner of the state borders on Lake Michigan, over which iron ore from the Lake Superior mines can be cheaply transported; hence the head of Lake Michigan is a convenient meeting point for this ore and the fuel required to smelt it. In consequence we find a number of large iron and steel mills located on the lake shore.

Furthermore, this being the most convenient meeting point for land and water traffic, numerous trunk lines of railway have been built to it, and as a result of these and other related activities, a great city, the second metropolis of the country and the largest railway center in the world, has been built along the lake.

Study each state graphic and by a similar course of reasoning determine the causes for the leading products and manufactures represented in them.

Geography learned in this way is not a mere matter of memorizing facts, but a training in reasoning which develops in the student the power of correctly inferring what the industries and products of any locality are if he knows the geographic conditions.

GEOGRAPHY AND HISTORY

Geography and history are inseparable. Since man came upon earth, his constant struggle has been to adjust himself to his environment, and he has prospered or suffered to the extent that he has succeeded or failed in his struggle. The chief conditions bearing upon history are climate and contour.

Climate. The great nations of civilization since the beginning of history have occupied the north temperate regions. Here climatic conditions are

such as to be most conducive to the highest development of the mental powers. Man must put forth sufficient energy to supply his physical needs to make him industrious, but only a part of his energy is required for this purpose and enough remains to enable him to attain the highest intellectual culture; consequently, within the north temperate zone, the world's great works of literature and art, systems of law and government that have influenced civilization for centuries, and all the great inventions that have made possible modern civilization have originated.

Contour. Great nations have always been developed in lowland countries, because here the production of the soil enables a small area to sustain a comparatively large population; and also because communication is easy, and this leads to interchange of commodities and ideas, which tends to the assimilation of neighboring peoples.

On the other hand, mountainous countries can sustain only a sparse population, and the inhabitants of each locality are separated from their neighbors by natural barriers, which are difficult to overcome. Hence in these regions small independent tribes hand down from generation to generation the traditions and customs of their forefathers.

The United States. No better illustration of the relation of history to geography can be found than that offered by our own country.

Location. Extending from the 26th to the 49th parallel of north latitude and from the Atlantic to the Pacific, it occupies the most favorable geographic position of any country in the world. Equally convenient of access from Europe and Asia, its location for world commerce is ideal.

Climate. The range of latitude alone is sufficient to give the United States a variety of climate, but the climatic range of the country is greatly extended by variations in altitude; yet nowhere within our boundaries is found the extreme cold of the polar regions or the high temperature of the tropics. Rainfall is equally distributed over a great part of the country and is sufficient for agriculture.

Contour. On the east a narrow strip of lowland extending along the coast and back of the Appalachian Plateau and Mountains, and containing thousands of rapid streams to furnish water power, makes a region nearly ideal for manufacturing purposes.

To the west of the Appalachian system is the Great Central Plain, whose eastern part, comprising the basin of the Mississippi, is the most fertile agricultural region in the world. This region also contains an abundance of coal. The Rocky Mountains, though unsuited to agriculture, contain untold mineral wealth, and on the Pacific slope there is another rich forest-bearing and agricultural region.

Communication. No other country possesses such natural advantages for inland transportation. The Great Lakes constitute a waterway that has no equal on fresh water, and through their outlet, the St. Lawrence River, they have easy communication with the Atlantic. The Mississippi and its tributaries have over 15,000 miles of navigable water. Moreover, the surface of the Central Plain makes the construction of railways comparatively inexpensive. All parts of the country are thus brought together through this means of communication.

Results. The variety of soil and climate causes a great variety of products and a wide variation of industries; consequently within the United States have been developed practically all lines of industry found in the temperate regions, and the history of our country has been the history of national development to meet industrial conditions which, in turn, were developed to meet geographic conditions.

Local History. But even in a more vital manner still can the relation of history and geography be shown—by associating events of historic importance

with the localities where they occurred. This may be in one's own town or country, and in one's state there are several places of special historic interest. These features should not be given too great prominence, but sufficient attention should be called to them permanently to associate the place and the event. Then there are those places of great national and even world-wide interest, which should be held sacred in every child's memory because of the great deeds wrought there—Hastings, Waterloo, Lexington, Bunker Hill, Saratoga, Gettysburg and many more otherwise insignificant, but memorial forevermore, because they are milestones in the progress of liberty. As he reads of these places, the child should be made to feel that:

"Words pass as wind, but where greatest deeds were done
A power abides transfused from sire to son."

GEOGRAPHY AND SOCIETY

In the questions, suggestions and exercises under *Practical Value*, attention has already been called to the intimate relation existing between geographic and social conditions. We wish here to discuss this relation on a somewhat larger scale.

The progress of civilization is due to geographic conditions, and the modification of these conditions by human agencies. That there is no dividing line between geography and society and geography and history is readily seen, but in the discussion of the first relation, greater stress is placed upon those features which construct or modify the conditions of society. All human activities are for the purpose of supplying men's wants, and these wants are divided into two great classes, those which contribute to man's physical welfare and those which supply the demands of his spiritual nature.

In the first class are desires for food, clothing, shelter and defense; in the second, those necessary to satisfy man's intellectual and religious cravings. Progress in civilization consists largely in multiplying both classes of wants. The satisfaction of the wants of the first class led to commerce; the satisfaction of those of the second, to the development of the great educational and religious systems of the world. Just as the farmer depends upon the local merchant, blacksmith and carpenter, so does each state depend upon other states and each nation upon other nations.

Suggestions. This interdependence gives rise to many interesting problems which are far-reaching in their influence, and the study of these problems gives to geography a new and a broader meaning.

1. Commerce is the great agency of civilization. In its interest most of the great explorations and discoveries have been made.

(a) The discovery of America was due indirectly to an attempt to find a water route to India.

(b) The discovery of the southern point of Africa was due to the same cause.

(c) Trace the causes for the exploration of the interior of Africa and the explorations of the French in North America. Let these investigations lead to other further research along the same lines.

2. Contrast the habits, industries, government and social institutions of people dwelling upon the plains with those of nations dwelling in mountainous regions.

To illustrate, compare the inhabitants of the prairie states with the people who dwell in the region of the southern Appalachian Mountains.

The prairie states are characterized by a level or rolling surface and a fertile soil. Railways are easily constructed, and these, with the navigable streams, furnish adequate means of communication.

The telegraph is found in every hamlet, and the telephone in almost every home.

The inhabitants of these states have established commercial relations with the entire country and even with other lands.

They are conversant with all advancements in science and with the latest inventions and discoveries.

Their laws are such as are needed to regulate affairs on a large scale and to protect and foster commerce and industry.

The advantages of this region have for years attracted people from other lands, and among the inhabitants is a large sprinkling of the foreign element, which has contributed its influence to social institutions.

Schools and churches are everywhere, and there are enough higher institutions of learning to meet all demands.

The southern portions of the Appalachian Mountains occupy a region nearly as large as the German Empire. This region includes portions of Virginia, Kentucky, Tennessee, North Carolina, Georgia and Alabama.

The entire region is so mountainous that it is difficult to traverse. The inhabitants have been practically isolated from the rest of the world, and mountain barriers prevent communication of the settlements with each other.

The contour of the region is such that the construction of railways is impracticable, except where a few mountain passes form pathways for trunk lines connecting the coast region with the interior.

Most of the region is heavily forested, but the difficulties of transportation render marketing the lumber impracticable.

In colonial times and during the years immediately following the Revolutionary War, settlers moved into these mountains, and their descendants still occupy the territory.

The region is sparsely settled, and neighbors are often several miles distant. There are no large towns and but few small ones.

Agriculture is practically the only industry. The farms are small and yield the husbandman only a bare support for his family.

The methods and implements used in tilling the soil are those of former generations.

Deprived by natural conditions of community life, the people have felt no need of an elaborate system of laws, and consequently they have but little knowledge of the statutes of the states in which they live.

The region does not offer sufficient inducements to attract the immigrant; consequently no foreign element has injected its influence into these communities, and here is found the purest American stock in the country.

Here have been preserved with little change the customs and practices which these people inherited from their forefathers.

A more marked contrast in two communities occupying adjoining territory cannot be found, and unfortunately this contrast is too often placed before children and young people in such a manner as to lead them to look down upon the dwellers of the mountains. Each community has developed in accordance with its geographic conditions, and each is entitled to equal respect, but failure to grasp this truth often leads the inhabitants of each region to despise those of the other.

3. Consider what society has done to overcome or improve geographic conditions.

(a) Developing means of transportation.

Trace the influence of such works as the Erie Canal and the great ship canals at Sault Ste. Marie and across the isthmuses of Suez and Panama. See SAULT STE. MARIE CANALS; SUEZ CANAL; PANAMA CANAL.

Trace the influence of railroads on the development of the United States and upon the recent history of European countries. See RAILROAD.

So far as the effect on communication is concerned, the construction of a bridge is equivalent to removing the stream crossed. The tunneling of a mountain is equivalent to removing the mountain.

Such works involve too great expense for individuals; it is only organized society, either as corporation or government, that can bring them to completion.

4. The influence of certain inventions is of great importance in geography. From a geographical viewpoint the most important of these are the steamboat, the locomotive, the telegraph, the telephone and the reaping machine. Read the articles on each of these subjects in THE HOME AND SCHOOL REFERENCE WORK.

A perusal of the foregoing pages should convince the reader that "an efficient citizen has productive capacity." He produces that which ministers directly to the material needs of society; he assists in securing social conditions—laws and regulations—which favor individual prosperity; and, more indirectly, he helps in the production of a general intelligence and a public spirit which are always incentives to individual endeavor.

PLAN FOR THE STUDY OF BOSTON

I. General Description
- 1. LOCATION
- 2. AREA
- 3. RAILWAYS
- 4. GENERAL PLAN

II. Parks and Boulevards
- 1. PARKS
  - (a) Boston Common
  - (b) Public Garden
  - (c) Charlesbank
  - (d) The Fens
  - (e) Other Parks
- 2. BOULEVARDS
  - (a) Commonwealth Avenue
  - (b) Massachusetts Avenue
  - (c) Other Boulevards

III. Places of Historic Interest
- 1. BUILDINGS
  - (a) The Old State House
  - (b) Old South Church
  - (c) Faneuil Hall
  - (d) King's Chapel
  - (e) Christ Church
- 2. BURYING GROUNDS
  - (a) King's Chapel
  - (b) Copp's Hill
  - (c) The Granary

IV. Public Buildings
- 1. STATE HOUSE
- 2. CITY HALL
- 3. POST OFFICE
- 4. BUSINESS BLOCKS
- 5. PUBLIC LIBRARY
- 6. CHURCHES
- 7. MUSEUMS

V. Institutions
- 1. EDUCATIONAL
  - (a) Boston University
  - (b) Boston Normal School
  - (c) Boys' Latin School
  - (d) English High School
  - (e) Massachusetts Institute of Technology
- 2. OTHER INSTITUTIONS

VI. Industries and Commerce
- 1. MANUFACTURES
- 2. IMPORTANCE AS A COMMERCIAL CENTER

VII. History

VIII. Population

Outline for Study

The foregoing pages contain many suggestions for foundation work in geography. Of necessity the three departments into which geography is formally divided are here combined, since they cannot be separated in introductory work, but more advanced work recognizes these divisions. Those intent on systematic knowledge of geography should now consult the article "Geography," P. 1145 of the Home and School Reference Work. Also consult Topical Index, P. XXXVII, for a list of subjects related to the general subjects of geography. We have arranged the following outlines for study:

OUTLINES FOR HOME GEOGRAPHY STUDY

A. School district

1. Map Showing
   - (a) Pupil's home
   - (b) Road to school
   - (c) Farms and buildings
2. Description
   - (a) Number of district and local name
   - (b) Area of district (Sections of land)
   - (c) Number of people living in it
   - (d) Number of school children
   - (e) Surrounding districts
3. Physical Features
   - (a) Drainage
     1. River
     2. Creek
     3. Swamp
   - (b) Land
     1. Valley
     2. Hills

B. Outline for township

1. Map Showing
   - (a) Outline of township
   - (b) Location of pupil's home
   - (c) Towns or villages
2. Description
   - (a) Boundaries
   - (b) Location in county
   - (c) Range number or local name
   - (d) Area in square miles
   - (e) Population
3. Physical Features
   - (a) Land
     1. Hills or mountains
     2. Valleys
     3. Forests
     4. Mines
        1. Coal
        2. Iron
        3. Quarries
        4. Water power
   - (b) Drainage
     1. River
     2. Creeks
     3. Swamp
   - (c) Industries

C. Outline for county

1. Map showing towns, townships, rivers, railroads, etc.
2. Description
   - (a) Location in state
   - (b) Name and number of township
   - (c) Population
   - (d) Area in square miles
   - (e) County seat
3. Surface: hills, mountains, valleys
4. Drainage: creeks, rivers, lakes
5. Industries
   - (a) Agriculture, stock raising, dairying, etc.
   - (b) Mining and quarrying
   - (c) Manufacturing
   - (d) Markets
   - (e) Transportation: water, public roads, railroads
6. Government
   - (a) Officers
     1. Number and name
     2. When elected
     3. Duties

(b) Taxes, amount raised
(c) Public buildings
(d) Public institutions
(e) Congressional district

MATHEMATICAL GEOGRAPHY

I. Form of Earth
1. An oblate spheroid
2. Proof

II. Measurements
1. Diameter
(a) Polar
(b) Equatorial
2. Circumference
3. Area of surface

III. Imaginary circles
1. Great Circles
(a) Equator
(b) Meridians
(c) Ecliptic
2. Small Circles
(a) Parallels of latitude
(b) Boundaries of zones
3. Uses of Circles to Determine:
(a) Latitude
(b) Longitude

IV. Mathematical zones
1. Names and width
2. How determined

V. Motions
1. Diurnal
(a) Cause
(b) Points
1. Axis
2. Poles
(c) Results, Day and night
2. Annual
(a) Cause
(b) Orbit
(c) Results
1. Length of year
2. Change of seasons

OUTLINE FOR PHYSICAL GEOGRAPHY

I. Land
1. Considered as to Mass and Location
(a) Continents
1. Location
2. Comparison
3. Coast lines
4. Climate
(b) Islands
2. Considered as to Elevation
(a) Lowlands
1. Plains
2. Valleys
(b) Highlands
1. Plateaus
2. Mountains
(a) Manner of formation
(b) Influence on trade and commerce

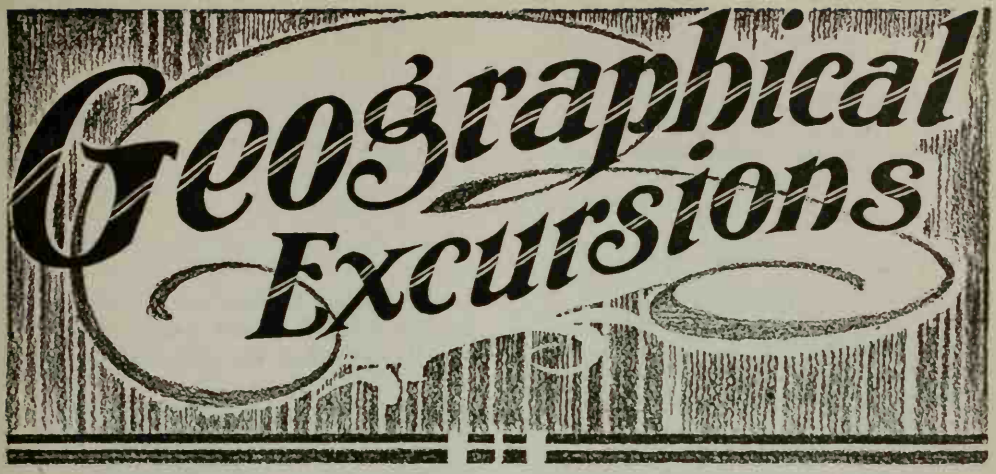
II. Water
1. Forms of water
2. Divisions
(a) Oceanic
1. The oceans
2. Arms of the sea
(a) Gulfs, bays, etc.
(b) Straits, sounds, etc.
(b) Uses of oceans
(c) Effect on climate
3. Inland water
(a) Lakes
1. Uses of, in commerce
2. Influence on climate
(b) Rivers
1. Uses of, in commerce
2. Work of, in carving the surface of the earth

III. Atmosphere
1. Composition
2. Heights of
3. Conditions: climate
(a) On what climate depends

North America

(Consult Home and School, P. 2048)

1. **Position, in what zones**
2. **Form and size**
3. **Coast Line, location and names of the indentations**
4. **Islands off the coast**
5. **Physical features**
   - A. Pacific, or Western Highlands
     1. Extent, length and width
     2. Mountain ranges
        - (a) Rocky Mountains
        - (b) The Cascades
        - (c) Sierra Nevada
        - (d) Sierra Madre
        - (e) Highest peaks
        - (f) Volcanic effects
          1. Active volcanoes
          2. Hot springs
          3. Geysers
        - (g) Scenic effects
          1. Natural parks
          2. Canon gorges
          3. Glaciers
        - (h) Great Basin (2960)
        - (i) Plateaus
          1. Columbia Plateau
          2. Colorado Plateau
          3. Mexican Plateau
        - (j) Minerals
   - B. Atlantic Highland (2959)
     1. Extent
     2. Mountain ranges
        - (a) Appalachian system
          1. Green Mountains
          2. Alleghany Mountains
          3. Highest peaks
          4. Minerals
     3. Grand Central Plain
        - (a) Location, area
        - (b) Divisions (2959)
          1. Prairie section
          2. The Great Lakes
          3. The Great Plains
          4. Slopes
          5. Elevation, greatest and lowest
          6. Surface and soil
          7. Minerals
     4. Isolated broken section
        - (a) Black Hills, Dakota
        - (b) Ouchita Hills, Arkansas
        - (c) Ozark Hills, Missouri
   - C. River Systems
     1. Of the Northern slope
     2. The Mississippi system
     3. Of the Atlantic slope
   - D. Lakes
     1. The Great Lakes
     2. Regions of small lakes
6. **Political Divisions**
   - (a) Danish America
   - (b) The Dominion of Canada
   - (c) United States of America
   - (d) The Republic of Mexico
   - (e) Central America
     1. Guatamala
     2. Honduras
     3. San Salvador
     4. Nicaragua
     5. Costa Rica
     6. Panama
   - (f) The island republics
     1. Cuba
     2. Haiti
        1. Republic of Haiti.
        2. Dominican Republic



Geographical excursions, real or imaginary, are always interesting to pupils, and serve to impress on memory geographical facts in relation to the places visited that will remain through life. In the usual methods of teaching geography, memory alone is appealed to. In the method here set forth we enlist the aid of other faculties.

In ancient days, the pantomime was employed in theaters. No words were spoken, but masks, dancing and acting told a story, the details of which the imagination of interested spectators supplied. This method of representation was the favorite one for many centuries. It has not lost its hold to-day. The moving picture shows which tell their story by means of pictures are the descendants of the ancient pantomime. Educators have been quick to grasp the significance of the moving picture as an aid in teaching. In some schools it is regularly employed as a method of teaching.

The essential feature of this process is capable of wide application and can be used in any school. Teaching geography by graphics is one way in which this idea is employed. In graphics the sense of sight is appealed to. The pupil who sees before him a pictured outline of a state that shows him the products of the state neatly arranged, in approximately their right location, has something more than memory of uninteresting figures to carry with him in after days. The same method is used in teaching history. Teachers should realize that they have in these graphics a means to vitalize their teachings to rouse interest, to enthuse pupils in their studies. The parents should realize that they are given material which can be utilized around the evening fireside, to interest and entertain the children.

As a further extension of the essential features of this process, which may be called the moving picture idea in education, we are introducing this series of geographical journeys. We have selected a few, only, of the many natural wonders of the United States as the objects of these journeys. Teachers and parents can make use of them to impress on youthful minds a great mass of facts pertaining not only to the immediate localities supposed to be visited, but the states in which they are located, the routes traversed in reaching them, and interesting items of history connected with them. It will be noticed from our description that we have done much more than to simply describe them. We have indirectly suggested further researches in many branches.

We feel that this department may be made of great value, not only by enriching geography but directly by acquaint-

ing children with some of the natural wonders of our own country. There were Seven Wonders of the Ancient World immortalized in history. In our country, nature has prepared a series of wonders that far surpass those contrived by man, ages ago. As we contemplate them, let us realize how insignificant are the works of man compared with the results of natural forces, slow working through vast cycles of time with infinite patience.

THE YELLOWSTONE PARK

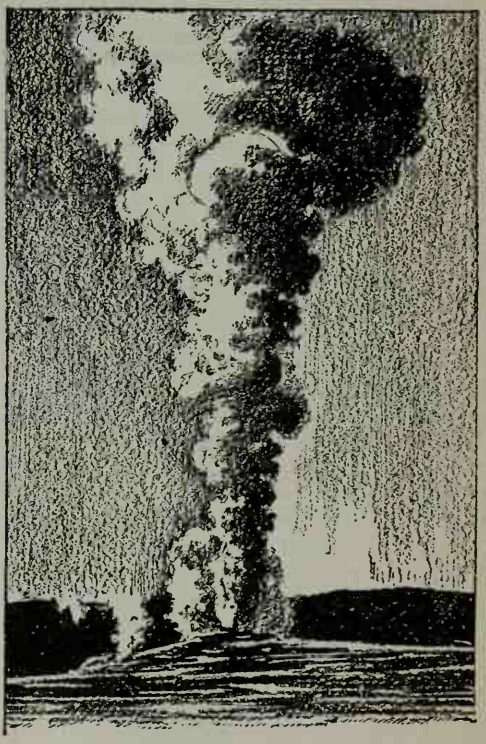
For our first journey we will go to Wyoming, the wonder state. Find it on the map of the United States and also examine the graphic of Wyoming. Probably no state in the union has grander scenery. There is one particular part of Wyoming which is so full of natural wonders that the United States has set it aside as a National Park. Originally it contained 3,344 square miles, but this area has been virtually doubled by forest reserves on the east and south. It is a big wholesome wilderness, about one-tenth as large as all of New England, situated on the broad summits of the Rocky Mountains, from six to thirteen thousand feet above the sea. It is set aside as a grand health, pleasure, and study resort for the nation, for all the world. The central portion, densely forested, is a comparatively level volcanic plateau, amid sublime scenery.

This central area is dotted with lakelets, one of which is thirty square miles in area. No other lake in North America, of equal area, lies so high, about 8,000 feet, or gives birth to such a noble river—the Yellowstone—whose waters finally reach the Gulf. Glacier meadows and beaver meadows are outspread with charming effect along the banks of its numerous streams, forming park-like expanses in the woods, and in this park are found the most wonderful geysers in the world, more than 100 in all.

We could spend weeks in this charming park and not exhaust its wonders, but we have time only to examine a few of its more prominent natural curiosities. On our way to them, you may get a chance to see some of the wild animals that are protected in this park, such as bears, deers and a herd of buffaloes. We will take a look at:

The Geysers

The geyser basins are mostly valleys on the central plateau that were eroded by glaciers, after the great volcanic fires



"THE GREATEST OF ALL KNOWN GEYSERS"

had ceased to burn. All have read about geysers. They are nature's artesian wells in which, however, the spouting column of water is boiling hot, and very irregular in flow. For minutes, hours or days all is quiet in the pool; then a column of water leaps forth, varying in diameter, rising to varying heights. It is forced

up by the pressure of imprisoned steam, probably deep in the interior, and a great deal of steam is mingled with the water. The pressure relieved, the waters cease to flow, but resume activity, generally at an uncertain time, in the near future. In some cases, the interval between the outbursts is known and varies but a few minutes.

Geysers are found in other volcanic regions of the earth, such as Iceland, New Zealand and Japan, but the geysers in this park surpass them all. They throw up a column of water, in some cases from fifty to sixty feet in diameter, rising from a few feet to three hundred feet in height. They are sustained at their height with tremendous energy, from a few minutes to almost an hour, standing erect, hissing, throbbing, booming, as if storms were raging beneath their roots. Their sides are roughened or fluted; their tops, masses of feathery branches. At times the spray is blown aside and the beautiful columns are seen against the background of pine-covered hills.

The columns display various forms; some are flat or fan-shaped; some broad and round-headed like oaks; others are low and branching near the ground like bushes; a few are hollow in the center like lily stalks. Some of the craters, from out of which the columns rush, are massive and picturesque, adorned with out-bulging flower-like formations, from which, as a center, the stone pavements slope in thin, overlapping layers, interrupted here and there by low terraces.

At the north end of the park, where the waters issue from the side of a steep hill, the deposits form a succession of travertine terraces, tinged with purple, draped in front with clustering stalactites, each terrace having a pool of indescribably beautiful water in a basin with a raised rim, the whole, when viewed at a distance, looking like a broad, massive cascade pouring over shelving rocks in snowy, purple foam.

The Excelsior Geyser, near Prismatic Spring, is the greatest of all known geysers. It is said to throw a column of boiling water, 60 to 70 feet in diameter, to a height of from 50 to 300 feet in irregular intervals. The Firehole River, which sweeps past, is at ordinary stages a stream about three hundred feet wide and three feet deep; but when the geyser is in eruption, so great is the quantity of water discharged that the volume of the river is doubled, and it is too hot and too rapid to be forded.

Hot Springs

Geysers are not the only wonder of this wonderful park. There are over 4,000 hot springs, with water at all degrees of temperature, some boiling hot. Nature seems to have set up one of her laboratories at the park. Generally she prefers to do her work under cover, far beneath the surface, but it is all in the open in the Yellowstone. She has innumerable pots and kettles—rocky bowls and crater-like depressions—where she seems to be cooking, boiling, steaming and stewing all sorts of rocks and earths. Some pots are sulphurous mush, stringy and lumpy; others are pots of broth as black as ink, tossed and stirred by gigantic but invisible ladles; others are full of colored paste, known as paint pots; others are filled with scalding mud which is tossed up, sometimes to the height of thirty feet, as if it were a gigantic pudding, the surface of which is blown up in blisters with escaping steam.

In order to understand what we mean about Tertiary times and the Glacial Age turn back and read the short article on Geology. Our scholars tell us that in Tertiary times, this section was a scene of great volcanic activity, probably far exceeding anything we know at present. Not once, but many times, did the volcanoes situated here belch forth floods of lava, boiling mud, and ashes. The whole country was covered to the depth of at least a mile. Then, after a vast interval, came on the long winter of the Glacial Age. The conditions now existing in Greenland held sway then in Yellowstone. The mighty ice of the glacier plowed and crushed and wore away

much of the lava covering, and left the surface features as they are to-day. The on-coming, continuation, and gradual passing away of these Arctic conditions is expressed—not in centuries—but in thousands of years. Here and there in the distant mountain recesses are found masses of ice, covering a few acres, minute models on a childish scale, of the great ice sheet of the Glacial Age, which carved and fashioned the surface features of this beautiful park.

The existing geysers, hot springs, and mud bowls show that not far within the surface, the volcanic giants are fitfully sleeping. Should they at some future time shake off their lethargy and once more lay this section in ruin, it would only be in modern times the repetition of an experience, time and again repeated in the distant past. We have no assurance that such will not be the case. The sudden outburst of true volcanic activity in recent years of Mt. Lassen in California shows that nature is testing some of her old vents and may conclude to utilize them again.

Petrified Forests

Among the great wonders of the Yellowstone Park is the series of petrified forests. Nothing more excites the imagination than to gaze on these fallen monarchs of unknown thousands of years ago. Probably the most impressive forest, or rather series of such forests, is in Yellowstone Park. Amethyst Mountain presents a section two thousand feet high of roughly stratified beds of sand, ashes and conglomerates, coarse and fine, that has been eroded by glacial and post-glacial action. On the ledges of that section can be seen the trunks and stumps of from fifteen to twenty ancient forests, ranging one above the other, standing where they grew, or prostrate and broken, like pillars of ruined temples in desert sands. It is a forest in stories, the roots of each spread above the tops of the one beneath. This is easy to read, but the most of us fail to grasp the wondrous story such a record implies.

Take the lowest forest first, though there is nothing to distinguish it from the others. Near the roots of the ancient trees we find the seeds, leaves and bushes of other trees that flourished in that distant time. They were just such trees as are now growing along the southern flanks of the Alleghanies, testifying to a warm and genial climate. And these great trees grew from five to ten feet in diameter; some of trunks, still standing, are fifty feet high. Thus many centuries of quiet growth passed. Then the volcanoes broke loose. The entire section was buried in mud and ashes; other centuries elapsed, a new soil formed, and a new forest of trees grew up over the entombed one; and this process we repeated as many as twenty times. Reflect on the slow process nature employs in her work and try and imagine the vast period of time such a series of stratified forests represents. Then came on the long Glacial Age, when for thousands of years the whole section was exposed to the grinding action of ice, perhaps a mile thick, uncovering portions of these buried forests so that we can read the exposed records.

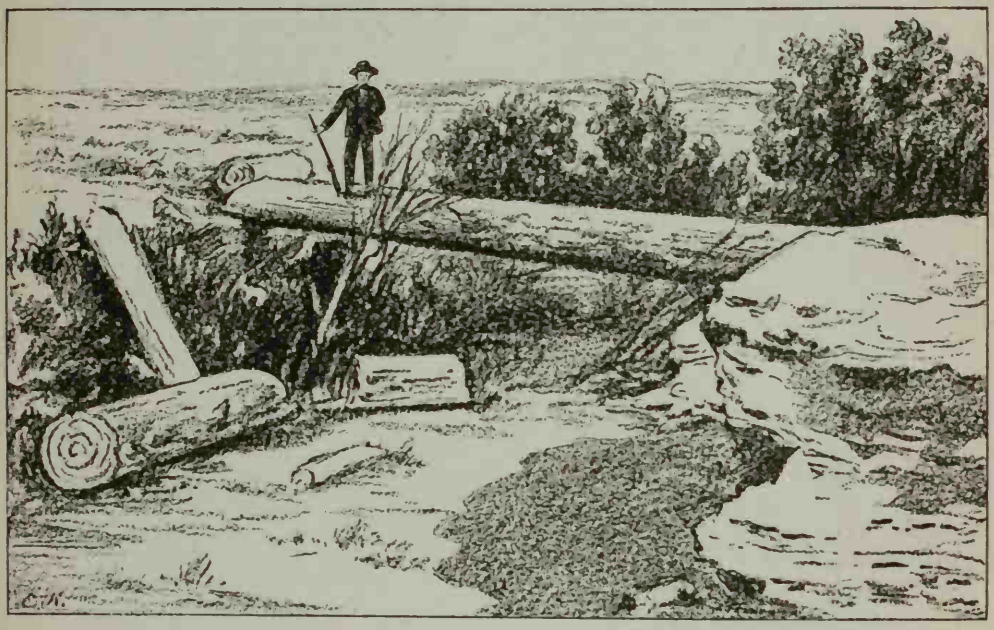
Arizona Petrified Forests

For our second journey we will go to Arizona. One of our southwestern mountainous states. And here in the eastern part, just outside the staked plain, as you can see from the state graphic, is the most famous petrified forest in America, indeed, in the world. It is a parched and almost barren expanse, covering thousands of acres, strewn with petrified remains of an ancient forest. This whole section is so interesting—a chapter of a long vanished past—that the government has thrown its protection around it and made it a natural park, not large but certainly very interesting. It tells us in the first place that this now barren section, long ages ago, was a fertile area, covered with noble forests, huge trees, ten feet and more in diameter, that must have been considerable more than one hundred feet high, for

some of the fallen logs are that long now.

The volcanic action, probably from the north, overwhelmed the forest, and drifting layers of sand covered it to a great depth. But the country was sinking. Over it all rolled the waters of an inland sea; the sea vanished; volcanoes belched forth their spume over the old sea bed. This cycle of events extended over an extremely long period of time, many, many thousands of years. Then in the long course of ages, the erosive forces of nature, water and air, removed large parts of the surface, leaving isolated mesas here and there.

But for centuries this section has been arid, showing another change in progress; but as the old surface was eroded, the fallen monarchs of thousands of years ago were once more brought to the surface, and there they are, all solid stone, of the most beautiful kind, some logs broken in pieces, but others are perfect. We can see the bark, count the rings of the old tree. They now gleam in the sunshine after sleeping in their graves for thousands of years. On the nearly precipitous sides of some mesas, representing uneroded portions of the old surface, here and there, the projecting ends of logs protrude; their resurrection is not complete. In one place an old fallen trunk spans a gorge, forming a stone bridge, and in the gorge small trees of today are growing, the only place in the park, by the way, where anything is growing. In order to preserve this ancient trunk, the government has built from the ground supporting abutments of stone. Of a truth, no other country has such wonderful remains that so eloquently testify to the lapse of ages, to climatic conditions of a long vanished past, to the tremendous energy of ancient volcanoes, to the rise and fall of continental expanse, to the presence of inland seas and abundance of water, where now there is an arid waste and shifting sand.



"AN OLD FALLEN TRUNK SPANS A GORGE"

Cañons of the West

We will discover in our travels that no country in the world has such wonderful scénic features as our country. Switzerland has its glaciers and Alps, Norway its fiords; the glaciers of Alaska, the tumultuous ranges of the Rockies, and the precipitous cañons of the West far surpass them. But first we will say something about cañons in general. The surface features of a country have been largely shaped by the action of running water. The rivers did not choose their course where they are now located because the valley existed down which they commenced to flow, but the valleys with their winding, graceful contour lines are situated as they are because the rivers in the course of time have excavated them. The river valleys thus cut vary in many ways. Where they have been cut through rocky strata, they often present precipitous sides and are known as cañons. Cutting down and through rocky strata of varying density and color, the cañon walls are often beautifully colored and polished and here and there harder masses of rocks projecting into the gorge have been fashioned into projecting spires, turreted walls, castellated domes.

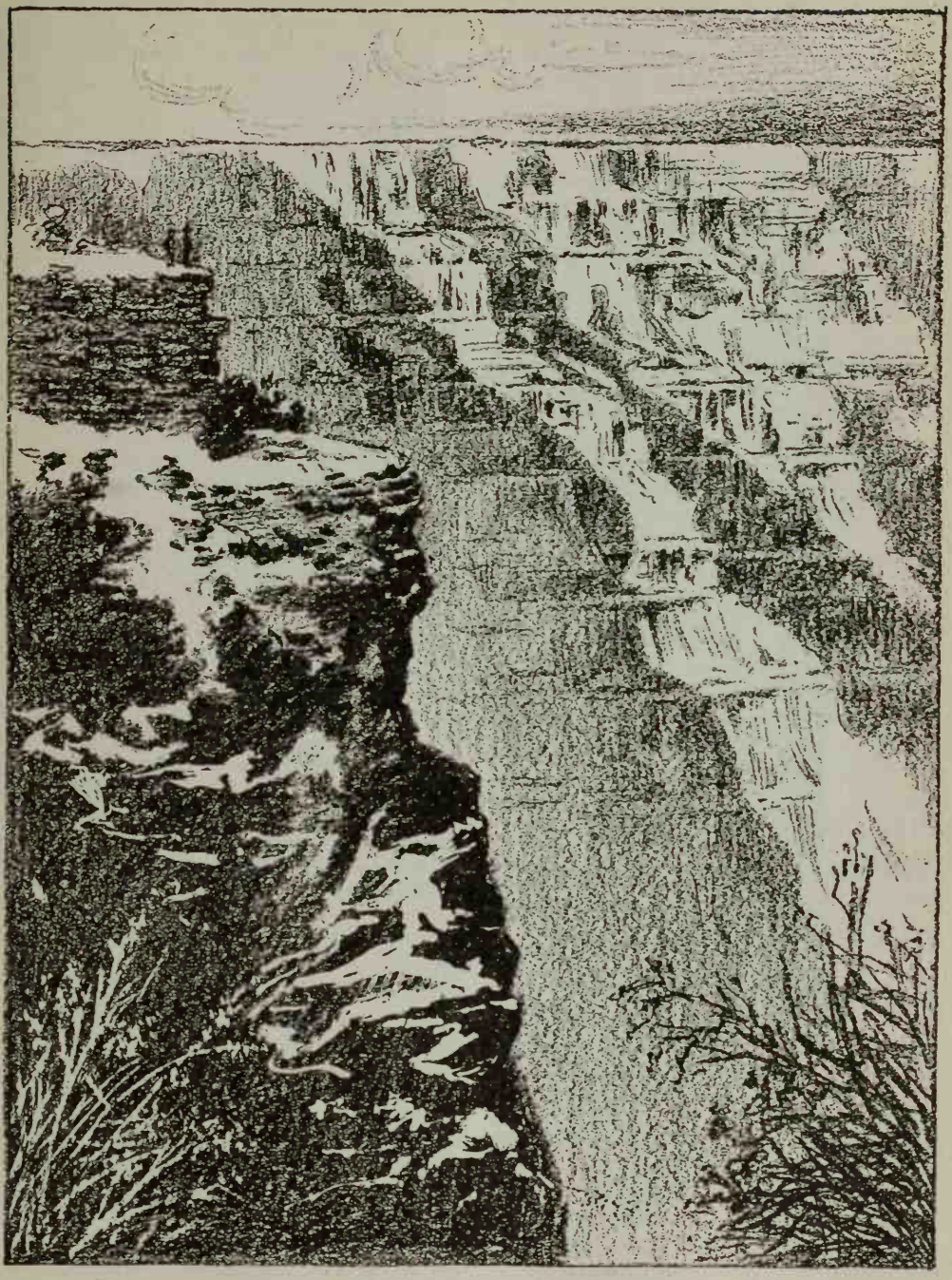
At first sight we can scarcely believe that running water could be the agent of erosion; we are apt to think it could have but little effect on the rocky walls. But running water alone does exert a great erosive power and gorges have been slowly eaten back by its force. The gorge of Niagara below the falls has thus been formed. If, in addition, the stream be swift in its flow and contains a great deal of sand—as the Colorado—it acts like a great chisel and cuts its rocky channel with comparatively great rapidity.

Grand Cañon of the Colorado

For our next excursion, we will visit the Grand Cañon of the Colorado, it takes its name not from the state of Colorado, but from the river of that name, and on the graphic of Arizona, you will notice it in the northwestern part of the state. It is the most wonderful example of the power of running water in the world. There is nothing that can compare with it.

You will notice from the maps that the Colorado River flows in a generally south and west direction to the Gulf of California. On its way it gathers in many tributaries. It cuts across the elevated border of the inland sea, which deposited great beds of limestone and other stratified rock. During late geological ages, this whole section has been gradually rising, but the periods of emergence have alternated with prolonged periods of time when the crust was stationary. At such times, rivers do not sink their channels; they meander from side to side, broadening their valley. Therefore the Colorado River has, in the long course of time, cut numerous wide terraces for a curving distance of two hundred miles. That part of the course through the northwest corner of Arizona, shaped like a gigantic, irregular letter "S," for a distance of more than two hundred miles is a cañon-like gorge that has been excavated on an average depth of about half a mile. The central portion of this course, where the general direction of the river is from the southeast to the northwest, a distance of about sixty miles—is known as the Grand Cañon of the Colorado, though the whole distance is a magnificent example of river erosion.

When you stand on the brink of the cañon on one side, you see the opposite brink, but will not realize that it is miles away—from eight to thirteen. What you see before you is a bewildering complexity of short terraces, ending in precipitous sides to a lower level. You are gazing upon a labyrinth of architectural forms, fretted with ornamental devices, festooned with lace-like webs formed of broken rocks from the upper cliff, painted with every color known to the palette in pure, transparent tones of marvelous delicacy. It is not one single cañon, rather a maze of cañons. Each little side rivulet seemingly has vied with the large river and contributes its side cañon to the general effect.



"THE GRAND CANON OF THE COLORADO"

The main river cañon is in places more than a mile deep, and the rocky walls rise almost perpendicular in places. They are carved and buttressed with all sorts of fantastic rock forms. Mere figures cannot convey a sense of the bewildering beauty and complexity of the cañon, though they may confer a slight impression of the work the river has performed. The river that we finally reach at the bottom of the main cañon is a swift-flowing stream, racing along at a speed of forty miles per hour.

What a profound antiquity is here indicated from the time the inland sea vanished and the river commenced to drain the plateau region, and to excavate its valley through the sedimentary strata. Each broad terrace means a period when the uplifting forces of the interior were quiet, each precipitous descent to a lower level is a period of elevation; at such times the river rapidly sinks its channel, and this latter action is still going on—that is, the cañon is still being excavated. In other words, nature has not yet completed her cañon building operations. A thousand years from now this great work may present features very different from the present outline, but it will ever remain one of the great wonders of our country.

The Yosemite Valley

Travelers who have journeyed the wide world over, been under the spell of the Swiss Alps, passed up and down the storied Rhine, enjoyed the placid beauty of Killarney, gazed in awe at the towering Andes, have not found words to describe the gem valley on the western flanks of the Sierras of California, known as the Yosemite Valley, with its surpassing waterfalls, its park-like meadows, its vast confining walls, carved and polished and sculptured by nature, with its jagged sky line of domes, minarets, and peaks that, sentinel-like, guard its approaches. This valley rightfully takes its place as one of the great natural wonders of our country, more wonderful far than any structure ever built by human hands.

You will notice it is due east of San Francisco, about 150 miles. Both the Tuolome and Merced Rivers have their source in this park, which contains innumerable lakes and waterfalls, with park-like stretches of meadows; the whole section is heavily forested, not a tangled underbrush, but the noblest trees in the world. There are lofty granite divides, ice-sculptured cañons, crystalline pavements, and snowy peaks, twelve and thirteen thousand feet high, arranged in open ranks or clustering groups of peaks. They are a part of the Coast Sierras. This section shows the action of glacial ice on a grand scale, which polished, eroded and ground down the old surface and dug out great gorges here and there. There are immense forests reserves both to the north and the south of the park proper. Besides the Yosemite Valley, there is the beautiful Hetchhechy Valley a few miles to the north, a wonderful thing in itself well worth a visit.

The Yosemite Valley in the heart of the park is another of nature's wonderful works. It is a sort of great pocket, cut deep in the recessed hills. It lies east and west, about six miles long, from a mile and a half to two miles wide. Through it the Merced River winds, entering the valley through a narrow rocky cañon known as the Tenaya Cañon, and escaping by a rock-strewn channel at the west end of the park. The center of the valley is a level area containing in all about 1,150 acres; of these, about 750 are meadows. Upon the meadows are grouped in groves, more or less dense, cedars and oaks, the latter often bearing large growths of mistletoe. In general, the meadows are covered with grass and innumerable flowers. These meadows are widely overflowed with water in the spring, caused by melting snows among the mountains beyond. The banks of the winding rivers are fringed with willows, poplar, evergreen, etc. As we approach the side walls of the valley we come upon rocky ledges rising to the walls proper and broken masses of tumbled rocks, in knolls of all shapes.

The Walls

Trees are growing wherever there is enough earth to afford room for the roots. The side walls rise to a height averaging fully 3,000 feet. They are not perpendicular in all places, and trails lead out, but such trails are few and always steep. In most parts, the walls are nearly straight up and down. Like all cañon walls, they are buttressed with strange carvings and projections here and there, and great pinnacles and domed surfaces and spires rise, perhaps from the bottom of the walls themselves, perhaps only from the top, standing up several thousand feet higher than the walls proper. They are portions of the old landscape that were too firmly rooted, or composed of rocks that withstood the crushing onward march of the great glacier. These pinnacles and crags lend sublimity to the scene.

The Falls

Though the river itself enters the valley by the Tenaya Cañon, there are several streams that do not, but leap boldly down from the surface level in one or more great falls. We must not forget that the Sierras are but a few miles away, many snow clad, and rivers issue from their lower levels, and some of these streams find their way to the Yosemite Valley. They are remnants of the numerous mighty streams, which poured their torrents over the brink of the cañon walls ages ago when the glacial winter was passing.

In the spring of the year, when the snow begins to melt, dozens of torrents pour into the valley, leaping from the cliffs, carrying with them great rocks and immense quantities of coarse sand and gravel to the lower levels. The air then is filled with the roarings of waterfalls. But there are several streams which pour their torrents over the brink of the cañon walls as they did ages ago when the glacial winter was passing away. The Yosemite Falls is probably the highest falls in the world. It is seventeen times as high as Niagara—making a descent of 2,634 feet. In the summer time when the river is low the wind is able to blow the falling water some distance away, but in the spring the falls are indescribably grand. The Bridal Veil Falls is divided into two sections of 600 and 400 feet, respectively.

"BRIDAL VEIL FALLS"

The Great Trees of California

In an earlier age, nature evolved many huge forms of animal life, of which the

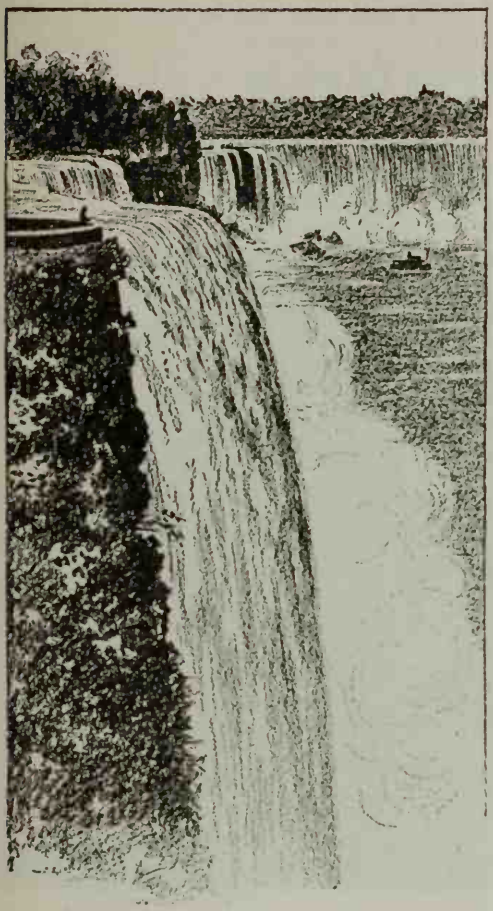
"THIS TREE WAS GROWING WHEN EGYPT WAS IN ITS PRIME"

elephants of today are the only living representatives, perhaps left to show us that nature tried various forms of life before settling on present forms. Nature also evolved huge forms of plant growth. Many ferns, today, graceful plants, a few feet or inches in height, were represented by trees thirty and forty feet high in the forests of early ages. The giant plant forms of all were trees growing in profusion in the forests of that early day. And in this case, also, nature has left growing in the forests of California representative of these old tree-giants; they are the famous Big Trees of California. They are such great natural curiosities that they will well repay a visit. Those trees were growing when Egypt and Assyria were in their prime. They were approaching maturity when the Christian Era opened. Their branches were waving in the air when Charlemange organized his empire; they were in serene old age when Columbus started on his voyage; their branches, rounded heads and vigorous forms still excite our admiration. Let them stand to remind us of a time when civilization was young, to show us and future generations some of the wondrous growths of former ages. Let us learn from them defiance of time and change.

Niagara Falls

We have been visiting some of the great natural wonders of the West. We can not choose a better subject for one of our excursions than Niagara Falls. The Zambesi Falls in South Africa are much larger, the Yosemite Falls several times higher, but Niagara possesses elements of grandeur surpassing them all. The present falls is divided into two sections by Goat Island. The rapids commence a few miles above the head of Goat Island, and the descent from there to the falls is 52 feet. Down this decline the waters hurry at a tremendous rate, breaking into foam-crested waves and billows as they approach the precipice. The American part of the falls is 1,060 feet wide, the height is 160 feet. The depth of water on the American falls is not great. Near the foot of this part of the falls are great piles of rock which

fell many years ago. The recession, or cutting back, of the American falls is slow—only about half a foot in the last fifty years.



"NIAGARA SURPASSES THEM ALL"

The part from Goat Island to the Canadian shore forms the irregular curve known as the Horseshoe Falls. The section is 3,010 feet wide, the average depth of the water passing is estimated at 20 feet, and the height of the fall is 158 feet. The great weight of the falling water has excavated a gorge fully 200 feet deep. This part of the falls is rapidly eating back—on an average from four to six feet a year. In the course of a few centuries, then, the location and appearance of the present falls will be greatly different, as when the head of Goat Island is reached the waters will cease to flow over the American side of the present falls.

The gorge below the falls is a true cañon, though on a small scale compared to the western cañons. The river in the long course of years has eaten back from the shore of Lake Ontario to the present location of the falls. The gorge vies with the falls as an object of interest; it rarely exceeds a quarter of a mile in width, is about 200 feet in depth, and in the course of seven miles descends about 100 feet. Consequently, through the narrow gorge the heaped-up waters race at a speed of thirty miles an hour. The channel is obstructed here and there by great rocks against which the current dashes.

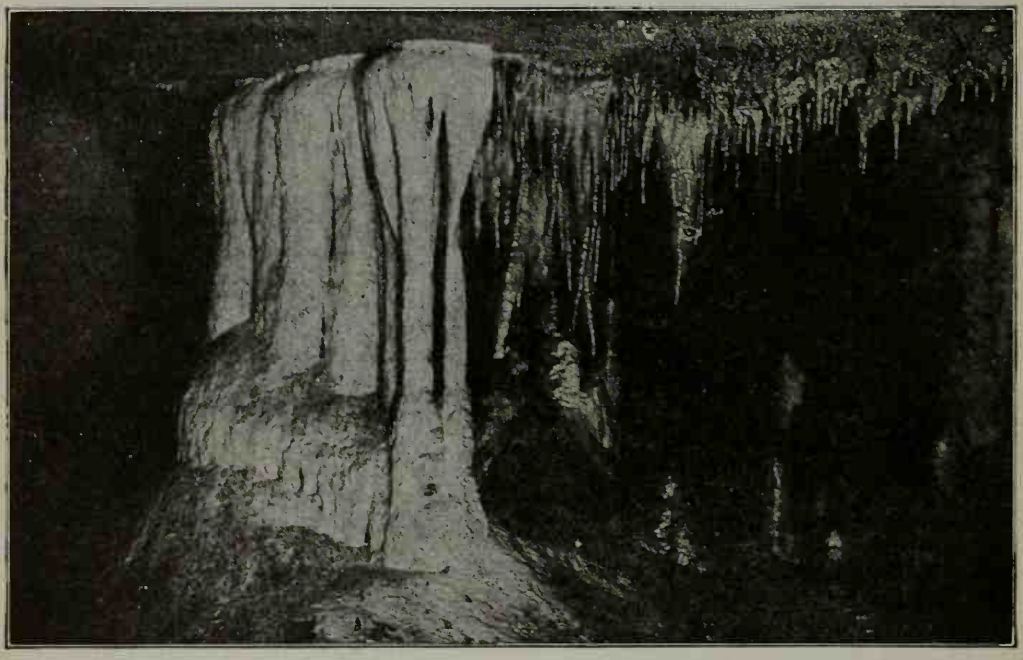
When There Will Be No Falls

Everything in the world is undergoing a change, vast sections of land are rising, other sections falling. The whole section of country to the east and north of the Great Lakes is gradually rising, though at a very slow rate. Should the present movement continue for another thousand years, the lakes will cease to drain down the St. Lawrence, but commencing near the southern end of Lake Michigan, the waters will resume their ancient course across the prairies of Illinois and down the Mississippi. The roar of Niagara will then be hushed.

MAMMOTH CAVE

Our last excursion shall be an underground one. Our country is so full of natural wonders that we can visit but few of them.

Along the Ohio River lies the most extensive cave region in the world. About three-fourths of the region is in Kentucky, and the remainder in Indiana and Tennessee. In Indiana is the wonderful Wyandotte Cave, and in Tennessee the Nicajack, both in some respects worthy rivals of Kentucky's great cavern, which is the largest cave in the world.



TYPICAL CAVE FORMATION

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This cave region embraces an area of about 8000 square miles, making it about the size of Massachusetts. Within this area are thousands of caverns and sink holes. It is a beautiful country of hills and valleys interspersed with fertile farms and luxuriant forests one riding through the region would never think that he was passing over an under ground world that has no equal. Mother Nature delights in variety and here and there has excavated great caves usually adorning them with pillars and pendants.

How Caves are Formed

It is not the purpose of this article to enter into a scientific discussion of the formation of caves, but a brief discussion of the process is necessary to a clear understanding of some of the descriptions which follow.

Caves found along the seacoast are usually formed by the action of the waves which wear away the softer layers of rock, leaving the harder layers to over-

hang the space thus excavated, but caverns like those in the cave region of Kentucky are formed by an entirely different process, and they occur only in regions where there are extensive limestone formations of peculiar character.

This vast cave region was in past geological ages submerged, but in successive ages it rose to higher levels until it reached the present altitude. Streams flowed down the slopes of the elevated plain, and erosion, both above and beneath the surface, was extensive. The water gathered carbonic acid (carbon dioxide) from the soil and the air, and this dissolved the limestone. Hence the softer layers of rock, attacked by both the mechanical and chemical action of the water, were worn away, some layers disappearing more rapidly than others.

Where there was no hard, resisting layer of rock on or near the surface, valleys were formed, but where these layers existed they remained in position after the softer layers beneath had been worn away, and formed the roof or arch of an underground valley commonly called a cavern. In this way the region became honey-combed with caverns. There are more than 500 known caverns in Edmonson County, Kentucky, and more than 4000 sink holes through which the surface water find its way to underground streams.

With this brief general description we ask our readers to join us in a few excursions into this underground world.

Mammoth Cave

Mammoth Cave, the largest cavern in the world, is in the south-central part of Kentucky, about ninety miles south of Louisville, and is reached by a branch railway connecting with the Louisville and Nashville Railway at Glasgow Junction, or by boat by way of the Green River. Its largest diameter is about ten miles, and it extends from 125 feet to 360 feet below the surface.

The cave consists of many winding galleries and passages which radiate from a number of centers, and cross and recross each other in a very irregular manner. Over 152 miles of these passages have been explored, and the work of exploration is still in progress. The main cave is from 40 to 300 feet wide, and from 35 to 125 feet high.

There are also many large rooms with dome-shaped roofs from 60 to 300 feet in height. The floor of the largest of these, Chief City, has an area of two acres, and the roof is 125 feet high. The room was so named because of the large number of Indian relics found there, showing that it was at one time a dwelling place of the red men.

The cave was discovered in 1809 by a hunter named Hutchins, and is now visited by about 15,000 people each year. During the War of 1812 large quantities of saltpeter were made in this and other caverns and delivered to the government, being transported to Philadelphia under great difficulties. It is generally acknowledged that without the saltpeter made here the United States would have been utterly defeated in this war, since the embargo prevented the importation of this important ingredient of gunpowder. Yet, so far as the writer knows, there is not a single school history that mentions this fact.

Our First Excursion

Certain preparations are necessary before entering the cave. On part of the ladies, bloomers must replace long skirts, and turbans made of bandana handkerchiefs or veils should be worn on the head. Men usually don complete suits of jeans, and likewise wear caps or turbans. The cave is no place for fine clothes. As we start for the entrance the guides line the party up in couples and each couple is given a light.

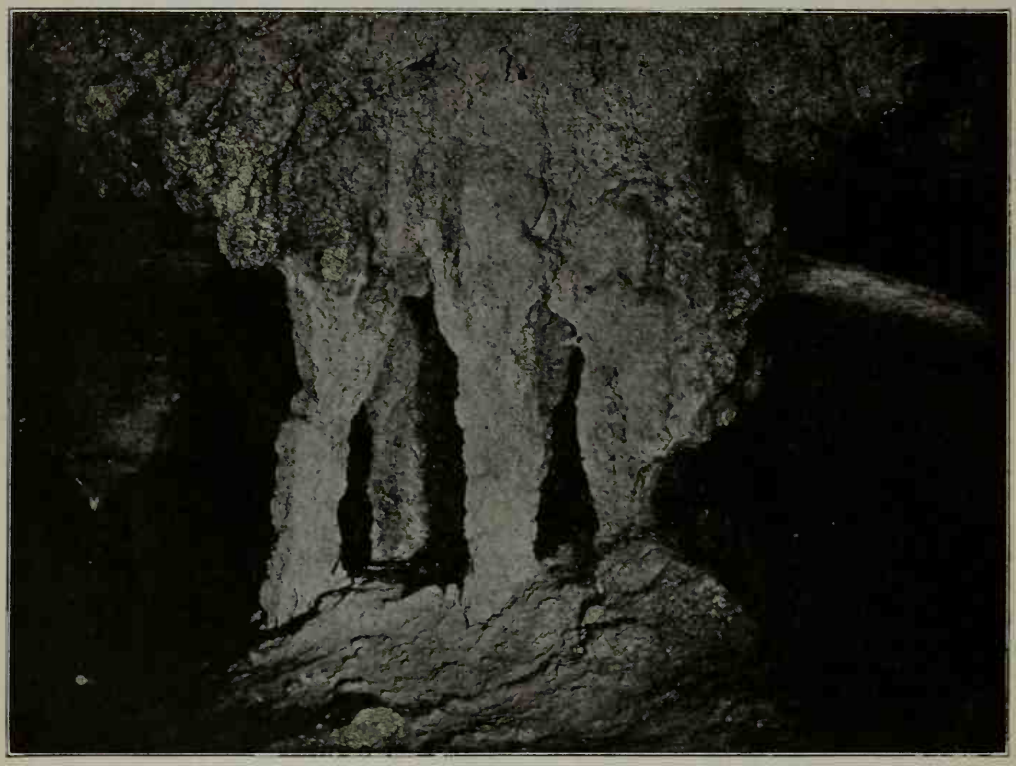
The entrance to the cave is an arch about seventy feet broad and fifty-nine feet high. The bottom is reached by a stone stairway, and at the mouth of the cave we are confronted by an iron gateway out of which issues a blast of air about fifty-four degrees in temperature. The gate is unlocked, the lamps are

lighted and we are in the lower regions. Here the guide gives us a few clear and positive directions which may be summed up in "Keep behind me; ask questions when you want information."

For the next four hours we follow the guide. Many of the passages are large enough to admit of laying a double-track railway in them, and in the upper levels the walks are dry. Everywhere the air is cool and pure. All about us are evidences of the gigantic forces of nature which operated through past geological periods of time, so great that it is fruitless to attempt to estimate their duration: vast passages worn by running water in solid rock, huge rocks here and there piled in endless confusion, and above all, those delicate structures formed by the slow evaporation of water charged with carbonate of lime and other minerals in solution. All these teach us that Mammoth Cave must be a very disconcerting place for the man who still holds to the old theory that the world was made in six days.

In a brief article only a few of the most striking features of the wonderful cavern can be touched upon. One who enters the cavern expecting to find stalactites on every hand will be disappointed, for they occur in only comparatively few localities. But to one interested in rock formations and the operation of geological forces, every point is full of interest.

Soon after passing the ruins of the saltpeter works, the walls expand, and the visitor finds himself in a large room formed by the meeting of two avenues.



BRIDAL ALTAR

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This chamber, called the Rotunda, is sixty feet high, and its roof is a grand arch beautifully ornamented by frets and folds. The guide informs us that we are directly under the hotel and 130 feet below the surface.

One of the objects of special interest is the Star Chamber, one of the most fascinating of all cave wonders. This is a section of a great avenue arched over with a roof of black manganese, in which are set innumerable crystals of snowy gypsum. Here we experience perhaps for the first time in our lives real darkness. The guides gather up and extinguish all the lights, then disappear behind a high wall of rock. The darkness is so intense that one's hand held within six inches of the eye is invisible. But when the guide left he bade us look up. In a few moments a trace of light, like the first heralds of dawn, is thrown upon the roof, and one by one the stars appear, the largest first, then those of lesser magnitude, until the Milky Way in all its glory is spread out before us. By skillful manipulation of the lights the illusion is made perfect. After the display the writer turned a strong flashlight on the roof of the chamber, and the larger crystals were easily seen. By reflection of the light thrown upon the roof by the guides, these crystals produce the stars.

Next to attract special attention are the stalactites, which are undoubtedly associated with everyone's thoughts of a cave. These wonderful formations are caused by the slow evaporation of water as it drips through crevices in the rock above. As the rain water filters down through the layers of rock above, it dissolves carbonate of lime, chalcedony and other minerals, and as the water evaporates minute portions of these minerals are deposited in solid form. Thus in the course of centuries stalactites are formed. They vary in size all the way from minute needles to large columns.

Stalagmites are similar formations, rising upward from the floor. Sometimes the two meet, forming a pillar extending from floor to roof; such is the Sentinel, a lone stalactite guarding the entrance to Olive's Bower. Their color depends upon the substance of which the stalactites are formed, and freedom from the effects of the surrounding atmosphere. Those formed from carbonate of lime are usually pure white. But in Mammoth Cave those most frequently visited have been discolored by smoke from the torches. Formations of chalcedony are usually of various shades of amber, unless tinted by some metallic compound in the water. Gysum is usually white. The smaller formations are usually the more perfect, and for that reason pictures of them are most generally seen.

In Olive's Bower is the most perfect conical stalactite in the cave. It is of a slightly yellowish tint, and is surrounded by a group of smaller stalactites. Each is hollow, constituting a calcium pipelet through which the water is still dripping and slowly extending their points to meet the stalagmites below. Here we see the process going on. How long will it take them to bridge a space of six feet? We appeal to the guide who has spent years in exploring this cavern and conducting parties through it, and is an authority on the geology of the region: "Five years are required to form a deposit the thickness of a wafer," is the reply. We turn away in silent contemplation of the eons necessary to perfect the works of nature.

In Gothic Avenue are other stalactites of remarkable interest. The Bridal Altar, so called because it has been the scene of several weddings, has columns over eight feet high. Near by is Fairy Grotto, in which are some of the most perfect stalagmites in the cave.

But here our journey ends, and we retrace our steps to the upper air and the sumptuous dinner awaiting us at the hotel.

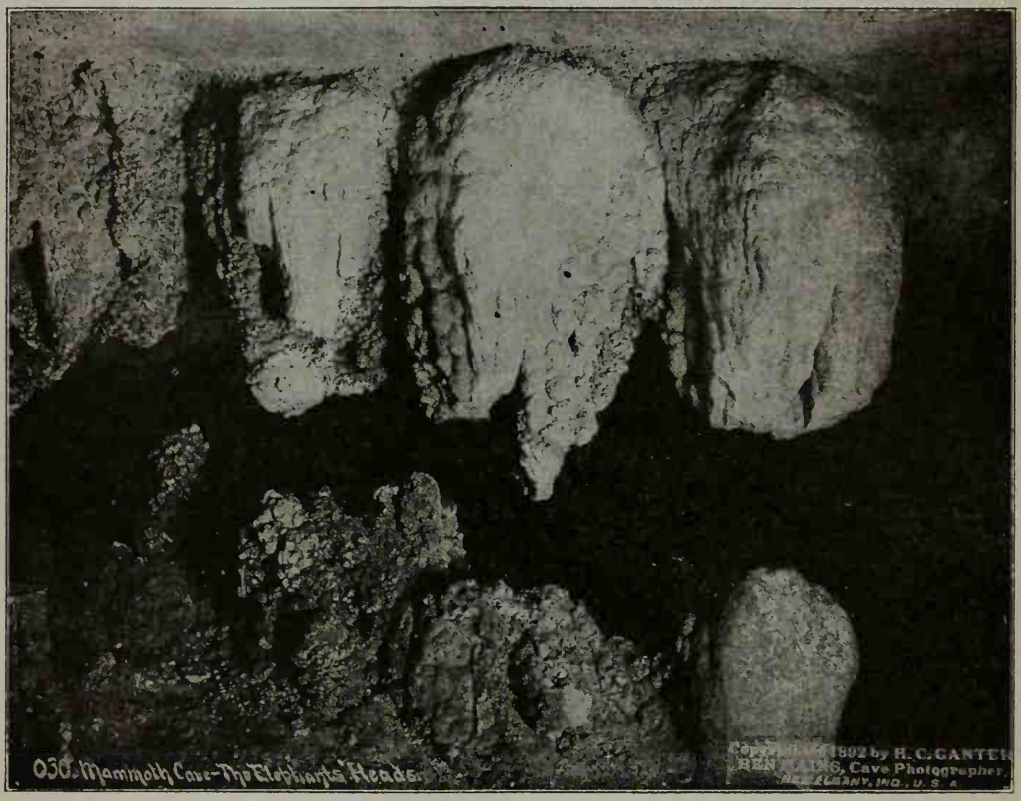
Violet City

This chamber was discovered in 1908 by the guide, Edward Bishop, while exploring to find a connection between two large avenues which were supposed to

be near each other at that point. It is the newest place opened to visitors. We wend our way over more than three miles of avenues, which have no special points of interest except Chief City, described above, and the general impressions of vastness which they convey, before our desired haven is reached.

and on the underlying floor are nearly as many stalagmites.

The stalactites vary in size from minute needles to those several feet in length and three or four inches in diameter at the base. They are arranged in rows and clusters, following the crevices in the rock. The onyx is translucent, and



The Elephants' Heads

Violet City is a dome-shaped chamber with a sloping floor rising on one side to within a few feet of the roof, which at its greatest height has an altitude of eighty feet. The walls of the chamber are circular and give it the general appearance of an amphitheater. The great arch of the dome is ornamented by beautiful foldings and fretwork carved by nature's hand. On the side where the floor rises to its highest level the roof contains hundreds of stalactites of onyx, when a strong magnesium light is placed back of them their delicate shades are beautifully revealed. The largest stalactites are resonant, and when struck lightly with any hard substance give forth musical tones. One group is of special interest because the stalactites are so attuned that their tones resemble those of a chime of bells, and simple tunes could easily be played on them. Some are in the form of thin sheets which resemble slices of bacon.

All about us water is dripping, indicating that these beautiful forms are being slowly extended. A more fascinating place would be hard to find. It is a fairy grotto in the bosom of the earth in which elves might hold high carnival.

The name "Violet City" was given this chamber in honor of Mrs. Violet Blair Janin, who was one of the owners of the Mammoth Cave estate. A more flagrant misuse of a name, from a scientific viewpoint, can hardly be imagined.

A Boat Ride Underground

The trip known as the River Route is even more fascinating than that already described, though after visiting Violet City the idea of vastness is not especially increased by this trip. The River Route takes us to the lowest level of the cave, 360 feet below the surface. The rock formations have a somewhat different appearance and give the visitor the impression that he is in another cave. The features of special interest on this trip are the numerous great domes, or pits, the underground river and the gigantic stalagmitic pillars found in Mammoth Dome and the Egyptian Temple.

We pass by walls and roofs covered with beautiful formations of carbonate of lime and of gypsum. One of these chambers is appropriately named the Snowball Room, whose ceiling is dotted with rounded masses of snowy gypsum, each from two to ten inches in diameter, and bearing a close resemblance to snowballs thrown against the ceiling by a party of schoolboys.

On the walls of Cleveland's Cabinet "the natural mimicry of every flower that grows in garden, forest or prairie, from the nodding pansy to the flaunting hianthus," is seen; flowers in stone formed by crystals of gypsum.

To enter River Hall and reach our destination, we pass through a winding passage which in some places is only eighteen inches wide, and to add to the traveler's discomfiture the ceiling is only five feet from the floor. Imagine a fat six-footer worming his way through this passage and you readily see why it was named "Fat Man's Misery." But what lies beyond is well worth the efforts.

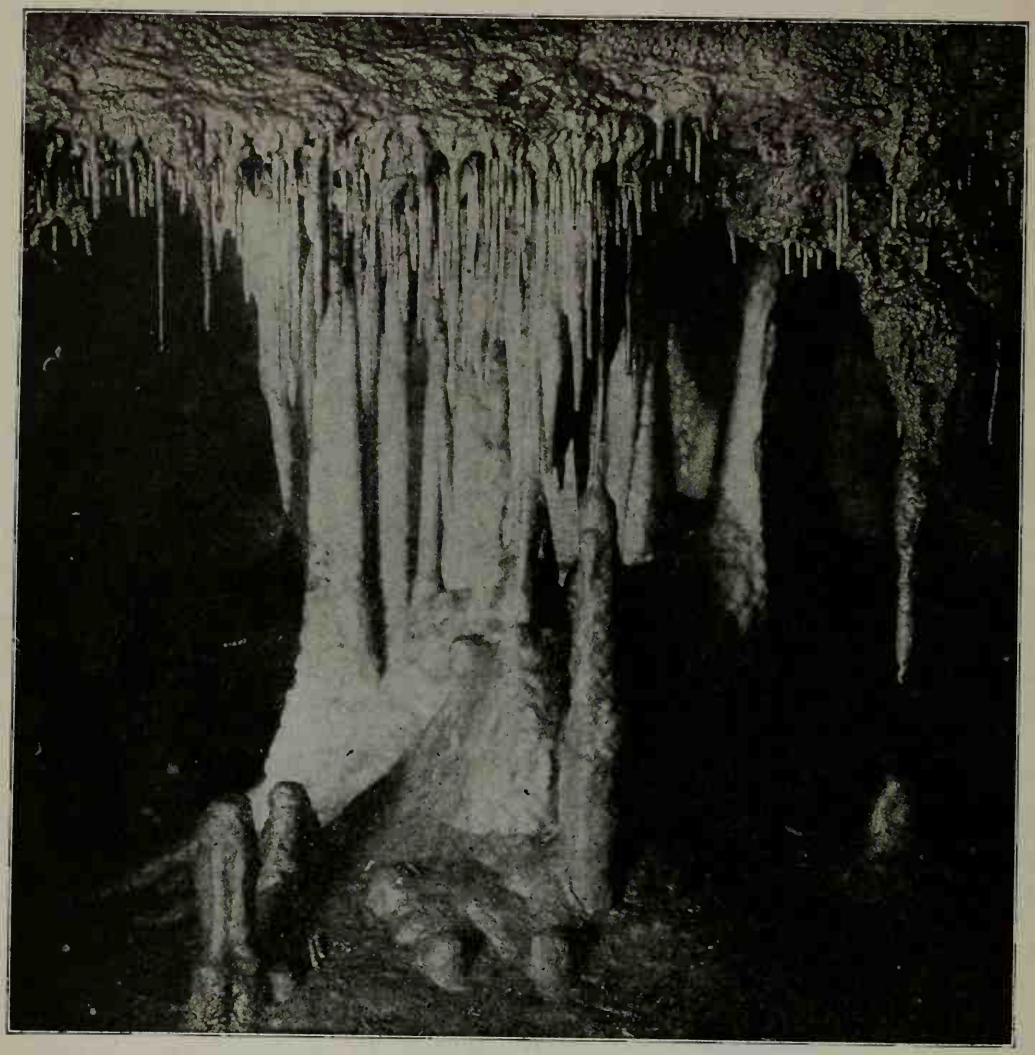
River Hall, in which are located the River Styx, Lake Lethe and Echo River, is one of the most extensive passageways in the cave. It is, in reality, a great underground valley, in which are gathered the subterranean waters from many sources, some of which are unknown. Their combined volumes form within the cave a stream fully two miles long and varying in depth from thirty to sixty feet. It reaches the Green River through an open outlet, and its waters rise and fall with those of that stream.

As we move along we pass in succession the Dead Sea, River Styx, which we cross on a natural bridge, and Lake Lethe, before arriving at Echo River, on which are a number of flatboats, each seating twenty passengers. The river has only a slight current, and the guides paddle the boats slowly along as the visitors test the resonant qualities of the overarching roof.

In perfect quiet the passageway does not give back a distinct echo, but it gives a prolongation to the sound which with musical tones is very sweet and pleasing. The best effects are procured when only a small company is present and perfect silence follows the sound. Eyeless fish are found in the river, and are easily seen when the water is clear.

A ride upon this quiet stream, nearly 400 feet beneath the surface, flowing between frescoed walls and under an arched roof of rare beauty, and whose resonant effects have few, if any, equals, is a unique experience which cannot be duplicated in any other part of the world. With a last lingering look at the great hall we retrace our steps and follow our guide to Mammoth Dome.

Mammoth Dome is a large vertical chamber 150 feet high and nearly 100 feet in diameter. In its general features it is typical of all other "domes" in the cave region. They are vertical shafts formed by the action of water, and often extending from the highest to the lowest



TITANIA'S BOWER Copyright, H. C. Ganter

level of the cave. The walls are often elaborately carved so that they resemble a temple of the past ages, and when it happens, as it frequently does, that to this engraving by nature's hand are added the delicate touches of stalactite formations, one can readily imagine that this is the palace of the gods. Such is Mammoth Dome. The walls are curtained with alabaster drapery which hangs in vertical folds with heavy fringes.

Just through a gateway is another room rightly named the Egyptian Temple. Here are six colossal columns, eighty feet high and twenty-five feet in diameter. The columns are deeply fluted with furrows, and veneered with a yellow stalagmite covered with a delicate tracery which resembles the most elaborate Chinese engraving. At the top are capitals formed by jutting slabs of limestone, and around the base are groups of mushroom-shaped stalagmites. The

resemblance to the ancient pillars of Luxor and Karnak is remarkable.

But as we gaze upon these wonderful columns the thought is borne in upon us that ages before Egypt was, these were being chiseled from the solid rock, and beautified by the delicate touch of a limpid stream.

From Mammoth Dome we turn toward the entrance of the cave. After we have traversed a short distance, the guide stops at the foot of a ladder and calls out, "The entrance to the corkscrew." Up the ladder we climb in single file, and enter a steep, narrow and exceedingly crooked passageway which ascends for 240 feet to the Main Cave, which we enter within a short walk of the stone steps which we descended at the beginning of our journey.

Other Caves

Within a short distance of Mammoth Cave Hotel are other caverns, which, though not so large as Mammoth Cave, are as interesting. Colossal Cavern, a mile and a half distant, is of special interest because of its beautiful gypsum formations and the great dome from which the cave takes its name. Over sixty-eight miles of avenues have been explored in this cave, but only a small portion of it is open to visitors.

But the visitor who leaves the region without a trip to Ganter's Cave will miss what the writer considers to be the most wonderful and interesting sights of the entire region. The cave is owned by Mr. H. C. Ganter, through whose courtesy the writer was furnished the photographs used in illustrating this article.

At the entrance is Titania's Bower, a fairy grotto containing hundreds of stalactites, as white as the finest Parian marble. Most of the other formations are of onyx, and some are of special interest because of their peculiar forms. In a room appropriately named the Market, turnips, beets, carrots, cauliflower, cabbages, dressed fowl and several other varieties of produce in stone are hanging from the ceiling. What caused these objects to take these peculiar forms as the dropping water slowly evaporated, each drop contributing its infinitesimal portion to the mass?

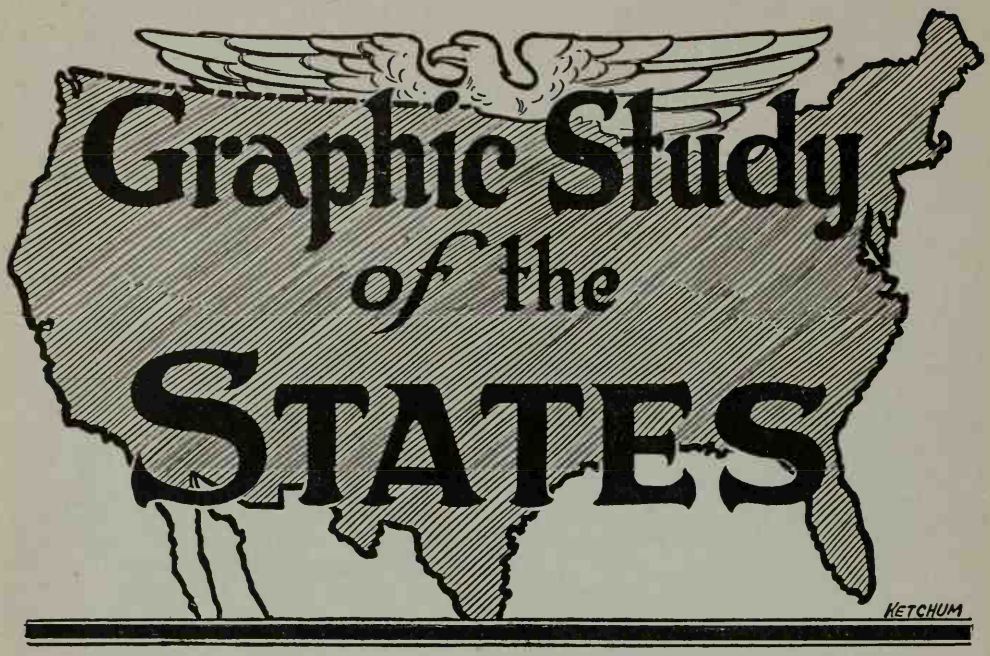
In this cave there are also three immense domes, so high that no illumination reveals the top. On the side of one of these is a row of stalagmites more than 150 feet in extent. They are carved and fluted in a most fantastic manner, and constitute one of the most inspiring sights in the entire cave region.

Who drives the horses of the sun
Shall lord it but a day;
Better the lowly deed were done,
And kept the humble way.

The rust will find the sword of fame,
The dust will hide the crown;
Ay, none shall nail so high his name
Time will not tear it down.

The happiest heart that ever beat
Was in some quiet breast
That found the common daylight sweet,
And left to Heaven the rest.

—*John Vance Cheney.*



On a previous page reference was made to the importance of knowledge of the agricultural products of a state. The central thought in this article is that geography touches every department of life; it vivifies our reading, enables us to discuss with more intelligence accounts of events transpiring in other lands, and imparts zest to daily life. We should, therefore, endeavor in every way to add to our store of such knowledge, to make it vivid, clear, and precise.

The Aid of Visualization

You enjoy moving pictures because sight and imagination are jointly at work to impress on the mind the lessons of the scenes before you. A graphic representation of a state is a pictured record of the activities of the state in agriculture, mining, and industrial life. A careful study of such a graphic impresses a picture on the mind that persists in memory and influences our thought—perhaps unconsciously—whenever we have occasion to think of the state. What can be more important than thus to form a mental picture of our country? A new era in history is opening; we are coming into intimate relations with the world as a whole. Let us gain a clear knowledge of our own country,—the separate states and their industries.

Graphics of the State

We have prepared a graphic for each state in the Union; and we suggest a careful study of the graphic before reading the accompanying text. An endeavor has been made, in most cases, to indicate the section of the state where local conditions favor the industry represented. A careful inspection of the graphic of most states tells us much of the surface features. To illustrate, consider the graphic of New Jersey. You can determine at a glance that the surface of the northern part of the state is rough and broken. This condition changes as you pass to the south. You have no doubt that the southern end of the state is low and sandy. So in all

cases, first make a careful study of the graphic,—note the productions and determine the surface features. Why are manufactures represented in one place, truck farming in another, and general farming in still another? Some reason underlies the selection in each case. Let these graphic features stamp themselves on your mind.

The Text Comment

You should next read the page of comment. This page is not intended to be an article on the state; you are referred for such an article to the "Home and School Reference Work." The purpose of this comment is to emphasize the lesson of the graphic, and show how conclusions such as these just mentioned can be deduced. If possible, interesting items of information pertaining to the products represented are added. Whatever explanations are given as to the state as a whole are intended to more clearly define the mental picture that you are forming. That is the point to be kept constantly in mind.

Questions

A series of questions terminates the graphic discussion of each state; but in the Classified Questions there are several pages of clear-cut though provoking questions, covering every phase of geographical study. The figures given refer to the pages of the "Home and School Reference Work" where an answer may be found.

New England

The six states,—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut,—form a closely connected group of states, with common history, traditions, customs, and manners, known as New England.

Before making a study of each separate state, it is well to make a study of this section as a whole. Its history is that of a most interesting period of our national history. Along its shore the Vikings of early days are thought to have sailed some centuries before Columbus left the port of Palos (3097). In a general way, the eastern shore was familiar to the explorers of France and England before the coming of the Puritans.

The early settlement in Virginia has been made the subject of a special study in history. (See History.) The peculiarities of the early settlers in New England are known to all; we owe to them the foundation on which our government rests,—the township organization. (See 4202.)

The area of New England is 66,424 sq. miles. The states west of the Mississippi River, except two, are each greater in extent than New England. Texas is four times as large. Population in 1920, U. S. Census, 7,400,909. There are two states, both east of the Mississippi River, each of which has a greater population. A study of the industries of New England, shown on the graphic, at once shows that, as a whole, it is a manufacturing section; consequently we expect to find its surface features rugged, presenting abundance of water power and excellent manufacturing sites. This conclusion is confirmed by a study of the individual states. Stimulated by the necessities of war, the manufacturing industry of New England has been enormously increased. We may expect that in the years to come the increased manufacturing facilities of New England will be used to increase the general happiness of mankind.

Questions on New England

Of what state is the picture in the upper left hand corner characteristic?

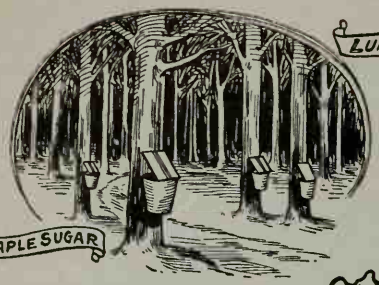
Explain the scene. (See Story of Maple Sugar.)

What are textile goods?

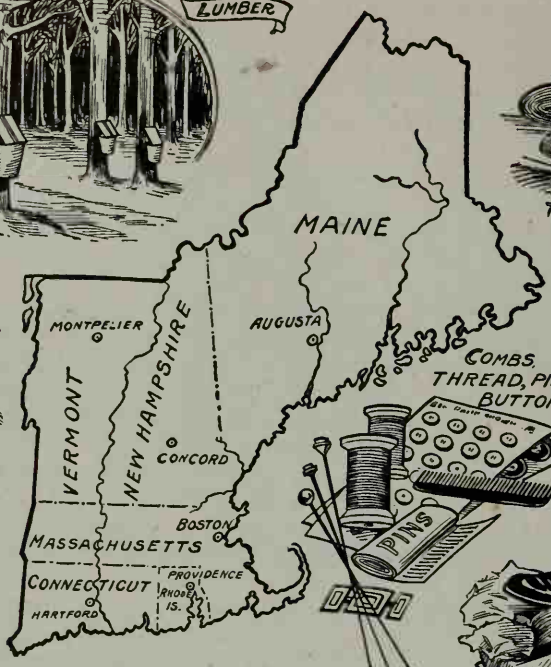
If the goods represented in the upper right hand illustration are cotton fabrics, outline the process employed in their manufacture. (See Story of Cotton.)

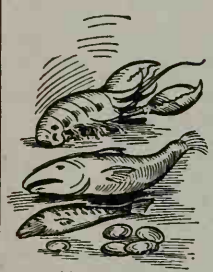
If the thread represented is silk, outline its production. (See Story of Silk.)

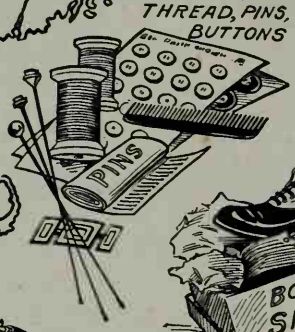
NEW ENGLAND


LUMBER
MAPLE SUGAR

TEXTILE GOODS


MAINE
MONTPELIER
AUGUSTA
VERMONT
NEW HAMPSHIRE
CONCORD
BOSTON
MASSACHUSETTS
CONNECTICUT
PROVIDENCE
RHODE IS.
HARTFORD


FISHERIES

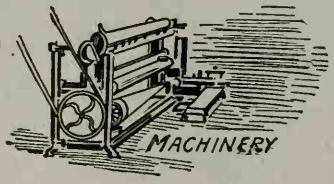

COMBS, THREAD, PINS, BUTTONS
PINS

BOOTS & SHOES

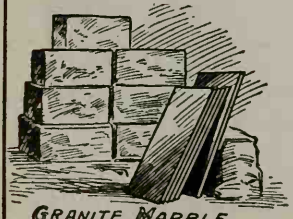
SEWING MACHINES

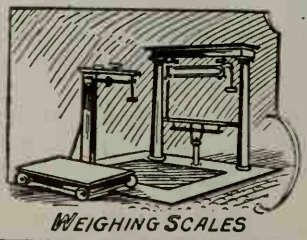
WATCHES & CLOCKS

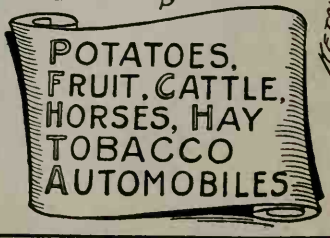
MILK
CHEESE
CREAMERY BUTTER
DAIRY PRODUCTS


MACHINERY

PAPER


GRANITE, MARBLE AND SLATE


WEIGHING SCALES


POTATOES,
FRUIT, CATTLE,
HORSES, HAY
TOBACCO
AUTOMOBILES

Maine

(Read closely article, Maine pg. 1749.)

Location.—Maine is the dome of New England, situated in the northeast corner of the United States, extending like a wedge into the Dominion of Canada, which it faces along a frontier of about 500 miles. Only one state has a longer line of contact with Canada. As a whole the state is nearly due west of Central Europe, due north of Venezuela; about half of its territory is further north than Montreal.

Area.—The total area of the state is 33,040 sq. miles. It is the 35th in rank among the states of the Union, midway in size between Indiana and South Carolina, very nearly half the total area of New England. It is just about three times the size of Belgium, or twice the size of Switzerland. The line of greatest length in the state would extend from Chicago to Lexington in the one direction, or nearly to St. Paul in the opposite direction.

Surface Features.—Maine is situated on the southern flank of the Laurentian Mountains and its surface features are controlled by that fact (1599). The interior of the state is a timbered mass of rounded hills of granite (1211), for the most part heavily wooded. Being a part of the oldest land surface on the continent, the erosive power of water acting through long ages (see "Erosion," 969) has cut many winding valleys, left numerous lake areas, and is the explanation of the peculiarly indented coast (see "Fiords," 1028). The action of ice during the glacial age (1174) emphasized all these features.

Development.—Though settlements along the coast of Maine go back to very early times (1722), yet the state has not developed its resources. Lacking only 344 square miles of being as large as the rest of New England, its population is only about one-tenth as great; Massachusetts being nearly nine times, Rhode Island nearly twenty times as densely settled. The new economic age now dawning will utilize the great natural resources of Maine, and no doubt a great development is at hand.

Water Power.—Water power is the "white coal" of the future, and a country blessed with an abundance of water power is sure of coming prosperity. In 1908 Maine was third among the states having developed water power, first among the New England states. It is said by geologists that the state has unrivalled possibilities in this matter. It is estimated that enough power could be developed to run every railroad in New England and operate every factory in that section. This resource can be made a greater asset to Maine than coal is to Pennsylvania.

Forests.—Seventy-five per cent of the area of Maine is forested, and lumber products,—including paper and pulp,—is the greatest industry in the state, amounting to about $50,000,000 yearly. The yearly growth of timber nearly equals the loss. Under a judicious system of forestry (1062) the timber can be so conserved that a still larger use can be made of the forests. Owing to the natural features of the state the larger part of this forest area cannot be used for agriculture and it will remain a great natural resource to the state.

Agriculture.—Improved methods in agriculture are being introduced and the state is said to rank first in the yield per acre and quality of potatoes and sweet corn. Aroostook County in the northern part of the state, is one of the great potato sections of the United States. Seed potatoes are sent from there to all parts of the Union. In 1825 the crop in that section was one and a half million bushels; in 1915 fourteen and a half million bushels.

Tourists.—The "See America First" movement was greatly influenced by the European war. No part of the world excells in scenic interest Maine, New Hampshire and Vermont. Even before

the war it was estimated that 500,000 persons from outside the state spent a great part of their summer in Maine, and brought into the state about $25,000,000 yearly. The development of tourists' patronage is one of the recognized industries of Maine. An organized effort is now being made to increase the tide of travel by building good roads, and opening sections of great scenic attractions.

Quarry Products. — Maine is the greatest producer of feldspar, third in the production of granite, eighth in the value of lime and cement. Slate of excellent quality is found, and there are beds of porcelain clay and of sand suitable for glass. There are small deposits of iron, zinc, and tin, with traces of silver and gold.

Questions

Compare this coast line of Maine, Norway, and the southern shore of Alaska, what conclusions can you draw? (1028).

How do you account for the winters in Maine being more severe than those of France? Of Washington? (623, 1567).

Is there any relation between the forests of Maine and the number of lakes? How many lakes in Maine? Do you know of any states that surpass Maine in the number of lakes? (1835, 1861). Can you suggest any reason for these states being so well supplied with lakes? (1749).

What state has a longer line of contact with Canada? (1899).

Why is Maine known as the "Pine Tree State"?

Is Maine as large as your state?

If your state was as densely populated as Maine what would be its population?

Examine the coast of Maine. Why is it called "Hundred Harbored Maine"? (1749).

If they were to clear Maine of forests would it make any difference? (687).

Name a great statesman who lived in Maine (316). Name a celebrated humorist (397). A great singer (2045). A great reformer (851). A chief justice of the United States (1109). A great poet (1691).

New Hampshire

(See state article, page 2000.)

Area and Population.—New Hampshire is one of the smaller states of the Union, having an area of only 9,341 sq. miles, and is the 43rd in size of the states. Texas is almost thirty times as large. In 1920 its population was 443,083. The population of Chicago is six times as great.

Location.—The eastern state of the two pillar states resting on Massachusetts as a base. As a whole the state is due west of Northern Italy, due north of Haiti. The state has only 18 miles of sea coast.

Description.—The middle state of the three northern states of New England, forming with Vermont and Maine a section of such scenic attraction that it is called the "Switzerland of America." The White Mountains in New Hampshire constitute the crowning scene of beauty and grandeur in this vast natural park.

Geologically.—The state is very old. On all sides one sees the rounded hills of granite and crystaline rocks that have withstood the erosion action of air and water for ages; and innumerable intersecting valleys, down which rivers course on their way to sound or sea. A most interesting chapter in the long drawn out conflict between fire and water can here be read. (Consult "Geology" 1146.)

Resources. — The value of water power is becoming every year more evident; the national government is taking up the matter. In 1908 New Hampshire had developed 183,167 horse power. This amount can be vastly increased. Already, the Merrimac River water power turns more spindles than any other river on earth. One corporation employs 1900 looms, 600,000 spindles; and turns out

two hundred million yards of cotton cloth and twenty million yards of worsted cloth yearly.

Agriculture.—A large part of the state is not capable of tillage. A very large part is heavily timbered and the state is making every effort to conserve the supply. Timber products,—pulp and paper making,—is an important industry. The numerous valleys, especially in the southern part of the state, filled with glacial drift (1174), are fertile.

Quarry Products.—Immense quarries of granite are located in many places. Four-fifths of the mica produced in the United States is from New Hampshire; soapstone, oilstone and fluo-spar are also produced.

Tourist Travel.—This is a very important industry. A great deal of capital is invested in hotels, and the state is making great efforts to attract this trade by building roads.

Questions

A large proportion of the population is of French descent; how do you account for this fact? (Consult article on Quebec, Pg. 2385, and frame your answers.)

It is said the ice of the glacial age flowed over Mt. Washington; how thick must it have been? (2000).

What important treaty was signed at Portsmouth? (2502).

How much larger, if any, is your state than New Hampshire? How does it compare in population?

Mention the use made of each of the quarry products of New Hampshire. (1212, 1833, 1053, 2676. See abrasives, P. 7.)

Why is there no coal in New Hampshire? Remember the age of New Hampshire. (Compare it with table, pg. 1148.)

What great orator was born in New Hampshire? (3096). What president of the United States? (2256). What general in the Revolutionary War? (2747). What great editor? (1231). What leader of a great religious movement? (896).

Vermont

(State article, page 3012).

Location.—Vermont, the Green Mountain state, is situated between Lake Champlain and the Connecticut River. It is a great natural park, containing at least 100 mountain peaks more than 2,000 feet in height and about 400 lakes most of them in mountain setting.

Area and Population.—The area of the state is 9,564 sq. miles. It is a little larger than Wales, not quite as large as Holland or Palestine. Its population in 1920 was 352,428. Eighteen cities in the United States had each a greater population in 1920.

Water Power.—Its developed water power is now saving about 1,000,000 tons of coal a year. Vastly more can be developed. Already power is being sent from Vermont to manufacturing plants in central Massachusetts.

Items.—In proportion to its population Vermont produces more dairy products than any other state.

More than one-half of the maple sugar produced in the world comes from Vermont.

About five-sixths of the marble produced in the United States comes from Vermont.

Barre, Vermont, is the largest granite center in the world.

Comparison

As the three northern states of New England are sometimes called "The Switzerland of America," compare them with the real Switzerland, point by point,—area, population, position in latitude and mountains. There are several tunnels under the Alps, any under the Green Mountains? (1370). These states have all been exposed to glacial action. Has Switzerland? Any comparison in Lakes? Do you think their geological history has been somewhat the same? How do they compare in climate? General industries of the people? (See also article Alps pg. 82.)

Massachusetts

(State article, Page 1792)

The Old Bay State.—Massachusetts is the heart of New England, and with its history is entwined the history of the other states of New England. It is the state that indelibly stamped its peculiarities of life and thought upon New England as a whole, and impressed upon it that type of social activity manifest in public and private life that characterizes New England people.

Location.—The northern state of the three southern states of New England, forming with them a section of New England differing in some respect from that composed of the three northern states just described.

Area and Population.—In area it is one of the smaller states of the Union, being 8,266 square miles, thus only about one-fourth as large as Maine. Its population in 1920 was more than twice the total population of the three states just described, being 3,852,356, an average of 479.2 per square mile of area. This sudden increase in density of population distinguishes the southern group of New England states, the average density of population in the first three states being only 32.5 per square mile, or less than one-fifteenth of Massachusetts.

Surface Features.—While the pattern of surface feature, so to speak, is the same as already described in the northern section, it is on a much more subdued scale, because Massachusetts is farther removed from the original center of upheaval, the Laurentian Range in Canada (1599) and the center of glacial dispersion. While the state was covered with ice, yet glacial action was more a process of filling up ancient valleys with drift material (1174). Notice, the coast is not strongly indented as in Maine; also notice the far-flung, low-lying, sandy peninsula of Cape Cod. The formation of such a peninsula was impossible off the coast of Maine. So, except in the Green Mountain section itself, the hills are not as high, the valleys less picturesque, lakes and ponds much less numerous, areas of fertile land more common than in the northern tier of states.

Water Power.—In 1908 Massachusetts had developed 260,182 horse power from her "white coal." At present power derived from the Connecticut at Greenfield is serving manufacturing plants in Worcester and down the Blackstone valley, and many towns are being lighted with electricity from that source. The Blackstone River in Massachusetts, from Worcester to Narragansett Bay—45 miles—is said to be the best harnessed river in the United States. Its banks are lined with more than 100 mills. The immense paper mills and other industries at Holyoke are run by water power. This is true of many great factories, but it is only a fraction of possible power waiting development.

Items.—The first steam railroad in the United States was built in Massachusetts (pg. 2396). The first canal was constructed at Dedham. The first bank bills, printed at Amesbury. In Massachusetts was established the first printing press in the United States (2352), the first free school in America (pg. 798 "Dedham"), the first university (pg. 1280), the first college for women (pg. 3158).

Industries.—Massachusetts is preeminently a manufacturing state; owing to the development of Boston and other port cities, the abundance of water power, activity in ship building, the great importance attached to education (668); and the further fact that the soil is not well suited to agriculture. At Fall River is situated the greatest group of cotton mills in the United States. Lowell is called the "spindle city."

Westfield makes 90 per cent of the whips made in the United States.

Leominster makes a large proportion of the shell goods manufactured in the United States.

Athol makes three-fourths the fine mechanical tools made in the world.

At Brocton there are more than 30

shoe factories turning out 20,000,000 pairs of shoes every year. At Lynn more than 100 boot and shoe making concerns. Haverhill has the world's greatest slipper and low cut foot wear factories.

At Quincy is located the Fore River Ship Building Plant, one of the plants supplying the need for ships occasioned by the war. It is on a scale greatly larger than any plant before the war. It is one of the wonder plants of this era.

Questions

What would be the population of Maine if it were as densely settled as Massachusetts? Of New Hampshire? Of Vermont? Of your state?

Mention a Massachusetts poet (3126). A great philosopher (949). Two presidents (15, 16). A great historian (2171).

In Boston there is a monument commemorating an important battle;—what one is it? (418).

What strange delusion once possessed the people of Massachusetts? (3153).

We talk about water power; what is the real source of that power? (See "Evaporation" 985, also "Rainfall" 2399.)

How long would it take the Brocton shoe factories to make a pair of shoes for every one in your state?

How do you account for the great increase of population in Massachusetts over the northern states of New England?

Connecticut

(State article, page 683)

Area and Population.—Connecticut is about one-seventh as large as Maine; practically one-half as large as Vermont, New Hampshire or Massachusetts, the exact figures being 4,965 sq. miles. In 1920 the population was 1,380,631; nearly one-third the population of Massachusetts. The state contains four-fifths as many people as the three northern New England states combined. Note the great increase in density of population in the southern New England states over those of the north.

Location and Description. — The southwest corner state of the New England group. The striking scenic features of the northern group of states are much subdued in Connecticut. Much of the surface is rough, especially in the Green Mountains section of west Connecticut, and the scenery is grand; but the hills, in general, are lower, the valleys wider and there is a greater area of tillable land. Notice, the sea coast is not strongly indented, the reason being that glacial action dies away in Connecticut. Long Island, off the south shore, is the terminal moraine of the great glacier.

Water Power.—As is the case of all the southern group of New England states, the great industry in Connecticut is manufacturing, made possible by splendid water power. Windsor Locks, on the Connecticut River, is a noticeable example.

Manufacturers. — Waterbury, Connecticut, is the center of the brass industry of the world, and the brass and bronze industry is the greatest industry in Connecticut.

New Britain, Conn., is known all over the world for its hardware products, the second leading industry in the state.

Bridgeport is the most important manufacturing city in the state. Its principal industry is the manufacturing of sewing machines.

About one-half of the brassware in our country comes from Connecticut.

Meriden is the center of the gold, silver and nickel plating industry. Over two-thirds of the plated ware comes from Connecticut.

Bristol was the original center of the clock industry in the United States. It is still a very important industry. About three-fourths of the clocks used in the United States come from Connecticut.

Willimantic is the center of the thread industry in the United States.

Danbury is the greatest hat-making center in the United States.

Bridgeport is now one of the great ammunition producing centers in the

United States. In fact, the manufacturing facilities of the entire state are utilized on a most extensive scale for war purposes.

Questions

What, if anything, did Connecticut have to do with the territory of Ohio? (3106).

Mention a noted character in the Revolutionary War from Connecticut, though not born there. (2375). What great traitor to his country? (156). What soldier patriot? (1258). What distinguished theologian? (910). Who made rubber tires on automobiles possible? (1194). Who made the chief industry of Bridgeport possible? ("Sewing Machine," 2617).

What famous convention met at Hartford? (1280).

How does your state compare in area and population with Connecticut?

Rhode Island

Area and Population.—The smallest state of the New England group and the smallest state in the Union, its area being 1,248 sq. miles, and of that nearly 200 miles is water surface. Notice, it is about one-fiftieth of the area of New England, but it is the most densely settled state in the Union. The Census of 1920 gives it a population of 604,397, with a density of 566.4 people to the square mile. This population is very unevenly distributed, since about four-fifths of the people live around the head of Narragansett Bay.

Location and Description.—Rhode Island is, as it were, a small piece of territory inlaid in the greater territory of Massachusetts, on its southern shore, east of Connecticut. Its distinguishing feature is Narragansett Bay, which sets in from the ocean a distance of 25 miles, with a width at its greatest extent of about 12 miles. It is a wonderful harbor, dotted with islands. The surface features of the state back from the bay are the same as eastern Massachusetts generally.

Manufactures.—Owing to the proximity of good harbors, the abundance of water power derived from the falls in the rivers entering the Bay, and power from the Blackstone River, manufacturing industry in Rhode Island is very great.

In her contracted area are crowded nearly 5,000 active manufacturing establishments and the value of her manufactured goods per capita is larger than any other state in the Union.

In the city of Providence is manufactured one-fifth the product of the jewelry industry in the United States; the state standing first in the production of articles in gold, silver and bronze. The port of Providence is being rapidly improved. It is now the greatest oil distributing center in the East. In the manufacture of fine tools, screws and files, the state is in the front rank; the largest screw factory in the world is located in Providence, also the largest factory for files and rasps.

The state is second in the cotton manufactures according to the number of spindles employed; third place in the value of machinery manufactured. The manufacture of rubber and elastic goods has become very important.

General Questions

Do you agree that on the whole, Massachusetts moulded life and thought in New England? Did not New England as a whole mould life and thought in the states of the Union north of the Mason and Dixon line? (1791). If you were to take a map of the United States, tint the parts of those states largely settled from New England red, you would find it forms a broad band due west to the Mississippi River about as wide as New England. Notice the lines of migration are west, not north or south. Do you think the manufacturing interests of New England will increase in the near future? Why? Do you think agriculture in New England will be more flourishing in the future? (Read articles on "Agriculture," commencing 34). What will be one of the effects of the war on the northern New England States?

New York

(State article, page 2020)

Location.—New York, New Jersey, Pennsylvania and Delaware formed the middle group of the original thirteen states, separating the four New England states (Maine and Vermont were not among the original states) from the five southern states. At that time no one dreamed of the immense importance of the country to the west of the fringe of states along the Atlantic coast. Of the middle states, New York was the most important, being the most northern one, facing Canada and the Great Lakes and possessing a commodious harbor. It early received and has since retained by reason of its population and commerce the name of the Empire State.

Description.—From the graphic of the state and its industries we see that the surface of the eastern part of the state partakes of the same general features as the New England states adjoining. The Adirondack regions are the westward continuation of the striking features of Vermont, New Hampshire and Maine. That section also is a part of the "Switzerland of America," a tumbled mass of forest-clad hills, with numerous lakes, glens and valleys. With commendable foresight the state has thrown its protection around much of this section and has constituted it a state park.

The southeastern part of the state is a continuation of the striking features of west Massachusetts and Connecticut; the Hudson River is a repetition of the Connecticut River and valley, but with scenic features more pronounced.

The central and western part of the state has been subject to the same great glacial force that ground and leveled and polished southern New England. This part is known as the plateau region of New York. It has many fertile valleys. A succession of beautiful lakes in the central part gradually slope to the great depression occupied by Lake Erie and Lake Ontario, with the Niagara escarpment over which plunges the water of Niagara.

Area and Population.—The area of New York is 49,204 sq. miles; about three-fourths the area of New England on the east, about one-fifteenth larger than Pennsylvania in the south. It is in virtually the same latitude as France.

The population in 1920, U. S. Census, was 10,385,227, an average population of 217.9 per sq. mile. More than half this population is included in the city of New York.

It is the most populous state in the Union. Its population exceeds the total population of all the states east of the Pacific coast states, west of Minnesota, Iowa, Missouri, Arkansas and Louisiana —not including Texas—that have a total area more than twenty-five times as great.

Water Power.—The state at present is far in the lead of any other state in developed water power, due to the enormous power available at Niagara Falls (3034). A vast amount of water power remains to be developed over the state at large. Owing to the wide transmission of power from Niagara, the industrial development of western New York, from Buffalo as a center, will be great in the near future. As it is, exceedingly rare and valuable chemical products are rendered possible at Niagara (85,502, also article "Nitrogen," 2043. The process is successfully applied at Niagara).

Erie Canal.—(908). Improvements on the Erie Canal, now completed at a total cost of over one hundred million dollars, again make this state canal one of the most important canals in the world. It is truly an artery of commerce, and its influence is felt throughout the north and west of the United States, and it will be in the future, as in the past, one of the chief factors in the development of New York City.

New York City.—(2025). The first city in population and importance in America, its population being 5,620,048,

more than the total population of Nevada, Arizona, New Mexico, Utah, Colorado, Idaho, Wyoming, Montana and North and South Dakota. It is the commercial clearing house of the United States, if not of the world. It contains the most imposing buildings in the world; (2027) is approached by the most complete systems of tunnels known; (2940) is served by the greatest system of subways known; is located on one of the most commodious harbors in the world; to it converge the principal railroad systems of the United States, and its commerce is the greatest in the world. At present it is the greatest seaport city of the world, and, while present conditions are abnormal, it will be years, if ever, before it loses that rank.

Long Island—is that part of New York in the form of an island confronting the southern shore of Connecticut. At its western extremity is Brooklyn, now a part of Greater New York. Geologically the island is interesting, since it is largely the terminal morain (1174) of the great glacier.

Niagara Falls.—(2023). Niagara Falls, which New York shares in common with Canada, is one of the greatest natural curiosities in the world; it is also now serving a very utilitarian purpose in supplying a vast amount of electrical energy. The gorge below the falls is used by geologists to estimate the date of the glacial age. (See article on "Natural Wonders of United States.")

Agriculture.—Agriculture is still a prominent industry in the state. According to the school census, in 1915 nearly sixty million tons of forage crops were raised; the total cereal crop was over sixty million bushels; there were also nearly seventeen million bushels of apples, over twenty million bushels of potatoes, more than three million bushels of onions, and more than half a million tons of cabbage grown in the state.

Manufactures.—New York is the leading manufacturing state in the Union. In 1914 there were over 48,000 manufacturing plants in the state, and the value of their product was $3,814,661,000. The most important single industry is the manufacture of clothing. More than half the total clothing produced in the United States comes from New York.

Immigration.—It is interesting to remember that nearly all the immigrants to this country enter at New York City.

Questions

Is New York larger than your state?

Is it more densely settled?

Take the total population of New England, what part of the population of New York City is that number?

If New York were as densely settled as Rhode Island, what would be its population?

Does New York have as many manufacturing plants—area for area—as Rhode Island?

New York makes finished clothing; New England prepares cloth. Why this difference?

In 1912, 1,218,480 immigrants arrived in this country; about how many then entered New York City on an average every day of that year?

Less than three hundred thousand immigrants came in in 1916. What caused this great decrease?

What celebrated league did the first settlers find in the territory of New York? (1037). Who were these people? (1435). In what stage of culture were they? (2769).

How far back has Niagara Falls worked? (2035). Do you think the falls will ever get back to Buffalo?

What did the power of Niagara do to help win the war? (Read about Nitrogen and High Explosives 2670. Also "Fertilizers" 1014.)

Was the work of DeWitt Clinton (623) as important as that of Col. Goethals? (1188). What is the reason for your conclusion?

What presidents of the United States were from New York? (1023, 2476,

2998). What great statesman? (1920). Great architect? (425). What great capitalist? (3458). What poet? (3125). What distinguished author? (1473). What railroad organizer? (3000).

Pennsylvania

(State article, 2203)

Location.—Pennsylvania is one of the middle states of the thirteen original states. Being the central one of these states it received the appropriate name of The Keystone State.

Area and Population.—The area of the state is 45,126 sq. miles; intermediate in size between Mississippi and Virginia. Its population in 1920 (Census) was 8,720,017, an average density of nearly 194.5 per sq. mile. It is exceeded in population only by New York. More than one-fifth of the population of the United States proper is concentrated in these two states, though they constitute only about one-thirtieth of the total area.

Surface Features.—The graphic representation of the products of the state indicates that the surface features are very much broken. In general terms, the Appalachian system of mountains crosses the state from southwest to northeast, leaving a hilly plateau region to the north and west, also to the southeast, with narrow valleys and interlocking ridges. The mountains are nowhere very high, but they are rugged enough to make the scenery striking and beautiful.

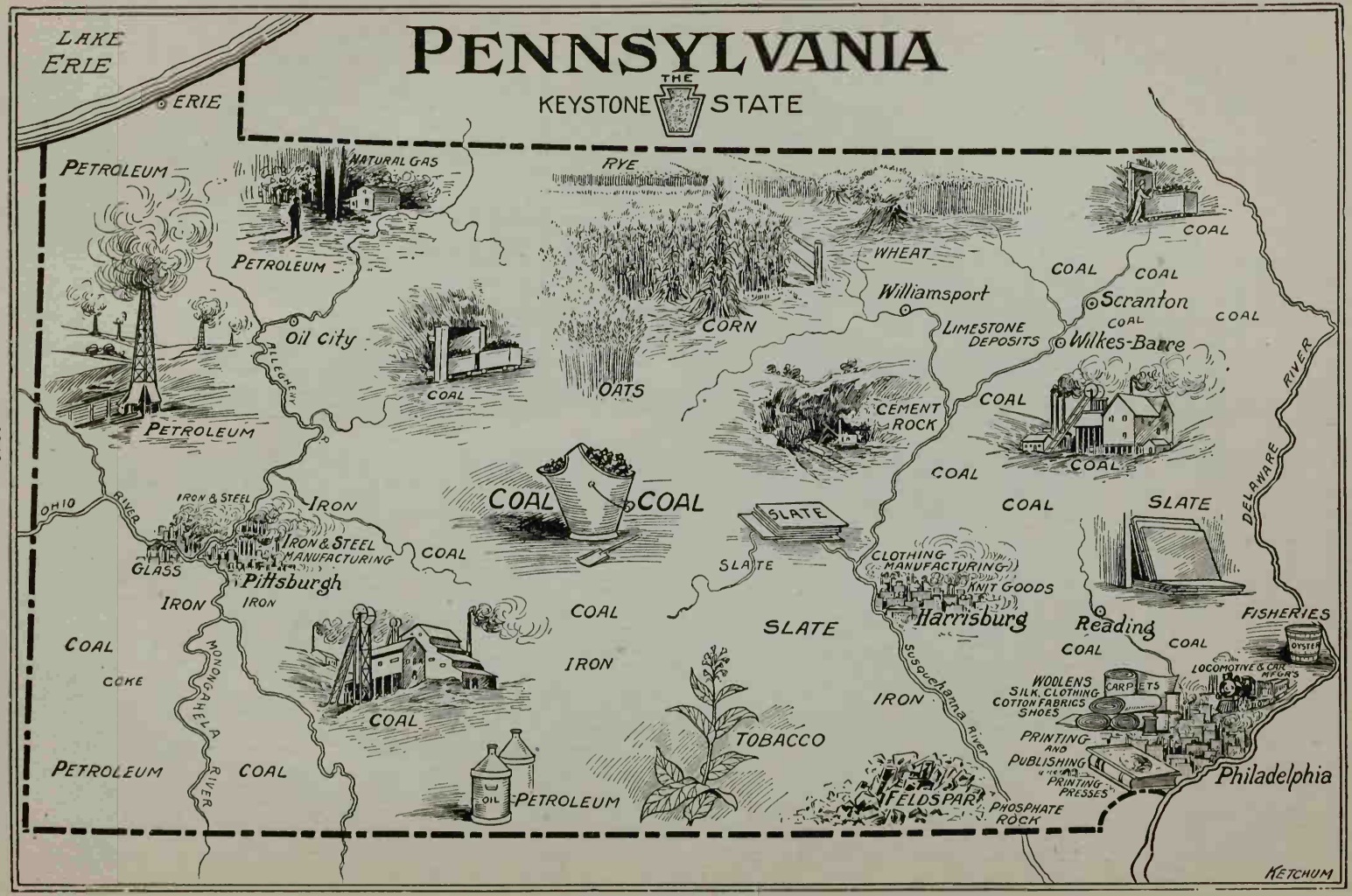
Glacial Action.—The terminal moraine (1174) enters the state at Trenton, and slowly curves to the northwest as it crosses the state. It can be easily traced the entire distance. To the north of that line we find surface features much the same as in southern New England and western New York,—the surface broken, having low, rounded ridges; valleys filled with drift material. Naturally, the only small lakes are found in that section. (Compare the lake section of northern New England, New York and New Jersey.)

Agriculture.—As shown in the graphic, wheat, corn and oats are important crops in the northern part of the state, but raised in other sections as well. Notice, most important in that part of the state plowed by glacial ice. Tobacco is raised in the southern part of the state. In 1916 one-eighth of the tobacco in the United States was raised in Pennsylvania. Naturally, the dairy interests are great, hence hay is the most important crop raised. Only New York exceeds Pennsylvania in the production of hay.

Coal.—As shown by the graphic, coal is widely distributed and is mined in large quantities (consult "Coal" 631); about one-third of the total coal produced in the United States is mined in Pennsylvania. Westmoreland and Fayette counties produce coking coal (642), and Connellsville (686) is the great coke producing city in the United States.

Manufacturing.—The abundance of coal, oil, and gas, and its location, make Pennsylvania a great manufacturing state. This industry was enormously increased during the European War. Pennsylvania now claims to be the "Arsenal State," meaning that its immense resources combined with its manufacturing facilities made it the center of arsenal activities for the war. The manufacture of armor plate and heavy forgings for naval vessels is carried forward at Homestead and Bethlehem. The largest ship plant in the world is at Hog Island below Philadelphia. Operations are on a scale never before imagined.

Pittsburgh, the center of steel industry in the United States, is now the greatest manufacturing city for steel supplies in the world. Two hundred and fifty great war plants employing more than 500,000 men were engaged day and night, and in many instances seven days in the week, in turning out war supplies for the United States and its Allies. Pittsburgh is several Essens (see Krupp 1566) in one,—it is not merely an industrial city, it is a city of stupendous industries. It


PENNSYLVANIA
THE KEYSTONE STATE
LAKE ERIE
ERIE
PETROLEUM
NATURAL GAS
PETROLEUM
PETROLEUM
Oil City
ALLEGHENY R.
COAL
RYE
WHEAT
CORN
OATS
Williamsport
LIMESTONE DEPOSITS
COAL
COAL
COAL
Scranton
COAL
COAL
Wilkes-Barre
CEMENT ROCK
COAL
COAL
COAL
DELAWARE RIVER
OHIO RIVER
IRON & STEEL
IRON
IRON & STEEL MANUFACTURING
GLASS
Pittsburgh
IRON
IRON
COAL
COAL
COAL
COAL
SLATE
SLATE
SLATE
CLOTHING MANUFACTURING
KNIT GOODS
Harrisburg
Reading
COAL
FISHERIES
OYSTER
LOCOMOTIVE & CAR MFG'S
COAL
COKE
MONONGAHELA RIVER
IRON
Susquehanna River
WOOLENS
SILK, CLOTHING
COTTON FABRICS
SHOES
CARPETS
PRINTING AND PUBLISHING
PRINTING PRESSES
Philadelphia
COAL
TOBACCO
PETROLEUM
OIL
FELDSPAR
PHOSPHATE ROCK
PETROLEUM
COAL
KETCHUM

is a city of furnaces, of rolling mills, of foundries; a plate-making, a gun-making, a shell-making, and ammunition-making city; a huge arsenal, upon which all the nations fighting for humanity, civilization, and democracy drew largely for their supplies.

Questions

What is the difference between anthracite coal and bituminous coal?

From what you have read about the origin of coal, what can you say about the geological history of Pennsylvania? (631).

Do you now see any reason why you do not find coal in northern New England? (Granite 1211).

Bituminous coal on the western flanks of the Alleghanies, anthracite coal on the eastern. Can you give any explanation for this fact? (631).

In the same mountain range in New York we mine graphite; at Niagara Falls they make graphite from anthracite coal. Do you see any connection between these facts?

Where do we procure the iron ore worked up in Pennsylvania mills?

Since we have to bring the ore and coal together, why would it not be cheaper to take the coal to the iron?

As a matter of fact, do we not do that to some extent? (See Duluth, 871.)

Do we ever make the coal and iron meet at a common point? (See "Gary," 1132.)

What important battle in the Civil War was fought in Pennsylvania? (1165). In the Revolutionary War? (371). In the French and Indian War? (364). What European nation built a fort at Pittsburgh? (1099).

What connection has Philadelphia with the Fourth of July? (797).

What great capitalist won his fortune near Pittsburgh? (506). Mention a noted senator born in Pennsylvania? (2380). A great statesman? (316). What public writer? (2825). What great song writer? (1074).

New Jersey

(State article, 2005)

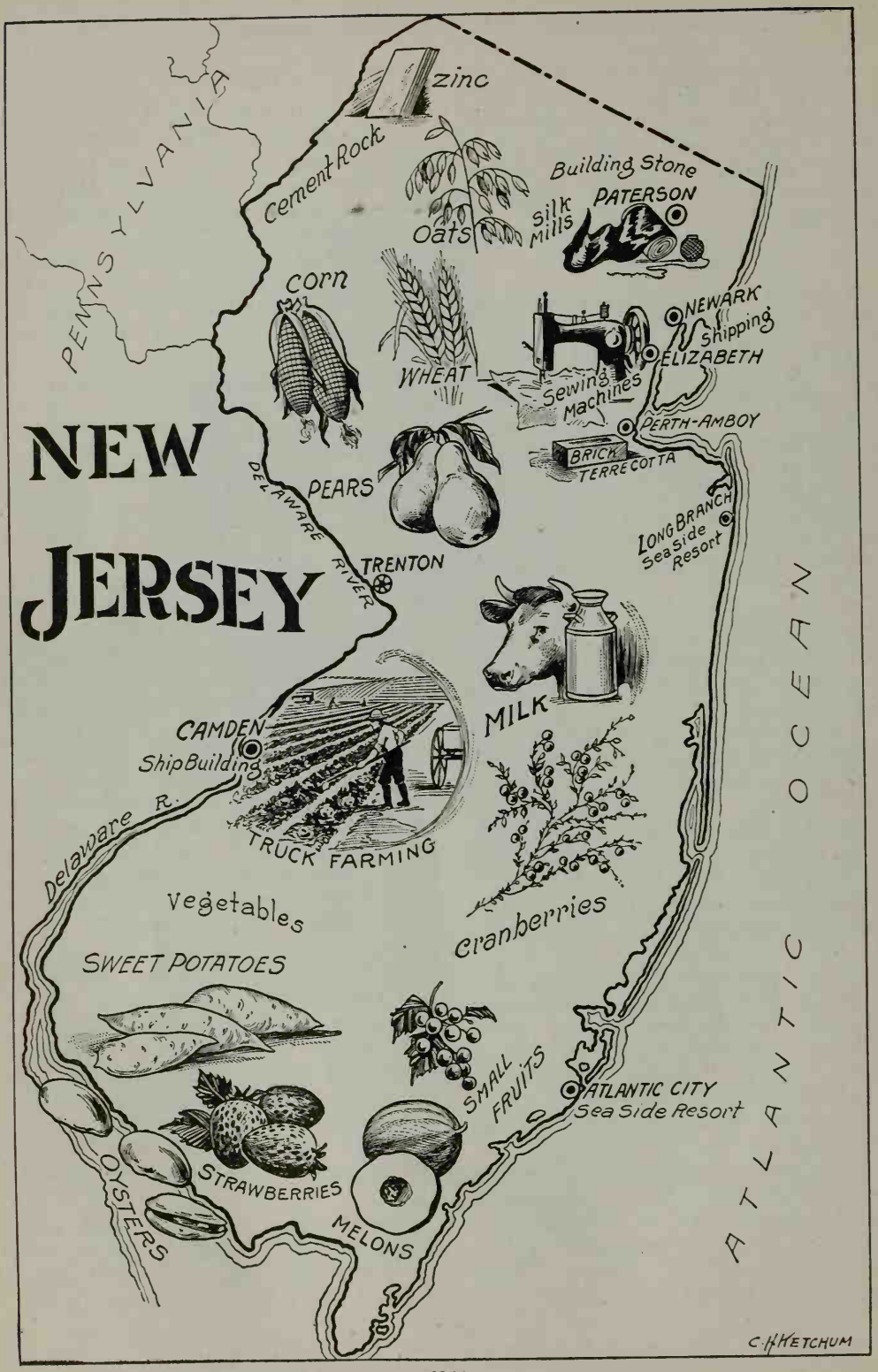
Location.—One of the middle states of the original thirteen states, extending from the Hudson to the Delaware Bay; presenting an irregularly curved line, slightly convex to the ocean; extending west to the Delaware River, a distance of about fifty miles. As a whole, it is in the same latitude as Switzerland, in the same longitude as eastern Cuba.

Area and Population.—Its area of 8,224 sq. miles is very nearly the same as Massachusetts, or nearly three-fourths the area of Belgium. Its population in 1920 (Census) was 3,155,900, an average density of 420 per sq. mile, about four-fifths the density of Massachusetts.

Surface Features.—The graphic shows us the principal productions of the state; as a whole they are arranged in that part of the state where conditions are best suited for them, and inform us of the soil and surface features of the state.

Appalachian Highlands.—It will be noted that the hardier grains are represented as growing in the northern part of the state, and there also are placed the manufacturing industries of the state. This section is bounded in the south by a curved line from Trenton to Perth Amboy. It is not meant that these products are not found elsewhere in the state, but natural conditions are such that they flourish better there. It is interesting to learn that section of the state is a continuation of the surface features of western Connecticut, shaped under the same general conditions, since it is the glaciated section of New Jersey. It is just the kind of a country that affords water power (see "Paterson" 2181).

The Manufacturing Belt.—South of that section is the chief agriculture and dairy section of the state. Part of it is the green sand marl section (1779)


NEW
JERSEY
PENNSYLVANIA
zinc
Cement Rock
Building Stone
PATERSON
Silk Mills
Oats
Corn
WHEAT
NEWARK
Shipping
ELIZABETH
Sewing Machines
PERTH-AMBOY
BRICK
TERRE COTTA
PEARS
DELAWARE RIVER
TRENTON
LONG BRANCH
Sea Side Resort
MILK
CAMDEN
Ship Building
Delaware R.
TRUCK FARMING
Vegetables
SWEET POTATOES
Cranberries
SMALL FRUITS
ATLANTIC CITY
Sea Side Resort
STRAWBERRIES
OYSTERS
MELONS
ATLANTIC OCEAN
C. H. KETCHUM

and red shale soils, formed largely by finely pulverized glacial drift swept out from under the melting glacier to the north (see "Glacial Period" 1174).

The Garden Belt.—The southern part of the state is represented as being the berry, fruit and vegetable section of the state. The soil is sandy, gravelly loam, and indicates a comparatively recent elevation above the surface of the sea. This section is the coastal plain part of the state.

Agriculture.—The value of the field crop and milk produced in New Jersey increased 275 per cent from 1900 to 1915. Area for area, southern New Jersey is one of the greatest vegetable and fruit shipping sections in the United States. Fifty to sixty carloads of tomatoes is a common daily shipment in the tomato season; 1800 carloads of potatoes, 500 carloads of strawberries and immense quantities of small fruits are produced yearly. More than one-third of the cranberries produced in the United States are from New Jersey. Such a large part of the state is devoted to truck raising, and such quantities of garden fruits and vegetables are raised that New Jersey is often called "The Garden State."

Manufactures.—In 1915 New Jersey ranked sixth among the manufacturing states of the Union. Paterson (2925) is the greatest silk manufacturing center in the Union. (See "Newark" (1992); Passaic (2178); Elizabeth (943); Bayonne (261).) Immense plants for the manufacture of high explosives are located at Morgan.

Questions

The only lakes in New Jersey are in the northern part of the state. Why is this the case?

There are over 40 large canning factories in southern New Jersey. Why are there so many there?

There is considerable difference in climate of south New Jersey and the north part of the state. Why?

The milk industry is very great in New Jersey. Why?

Give one reason why truck farming is so important in New Jersey.

Mention some of the great resort cities of New Jersey. (1691, 186, 164.)

What president of the U. S. was born in New Jersey? (620).

What great inventor has his laboratory in New Jersey? (899).

What important victory of the Revolutionary War was gained in New Jersey? (2925).

What city in New Jersey is noted for its connection with the petroleum industry? (261).

If New Jersey is about the same in size as Massachusetts, why is it not as great a manufacturing state? (Compare agricultural possibilities.)

What gave the name to Swedesboro? (2008).

How does your state compare in area and population with New Jersey?

Did you have anything Thanksgiving that perhaps came from New Jersey? (731).

Which of the fruits grown in New Jersey do you like best? (2006).

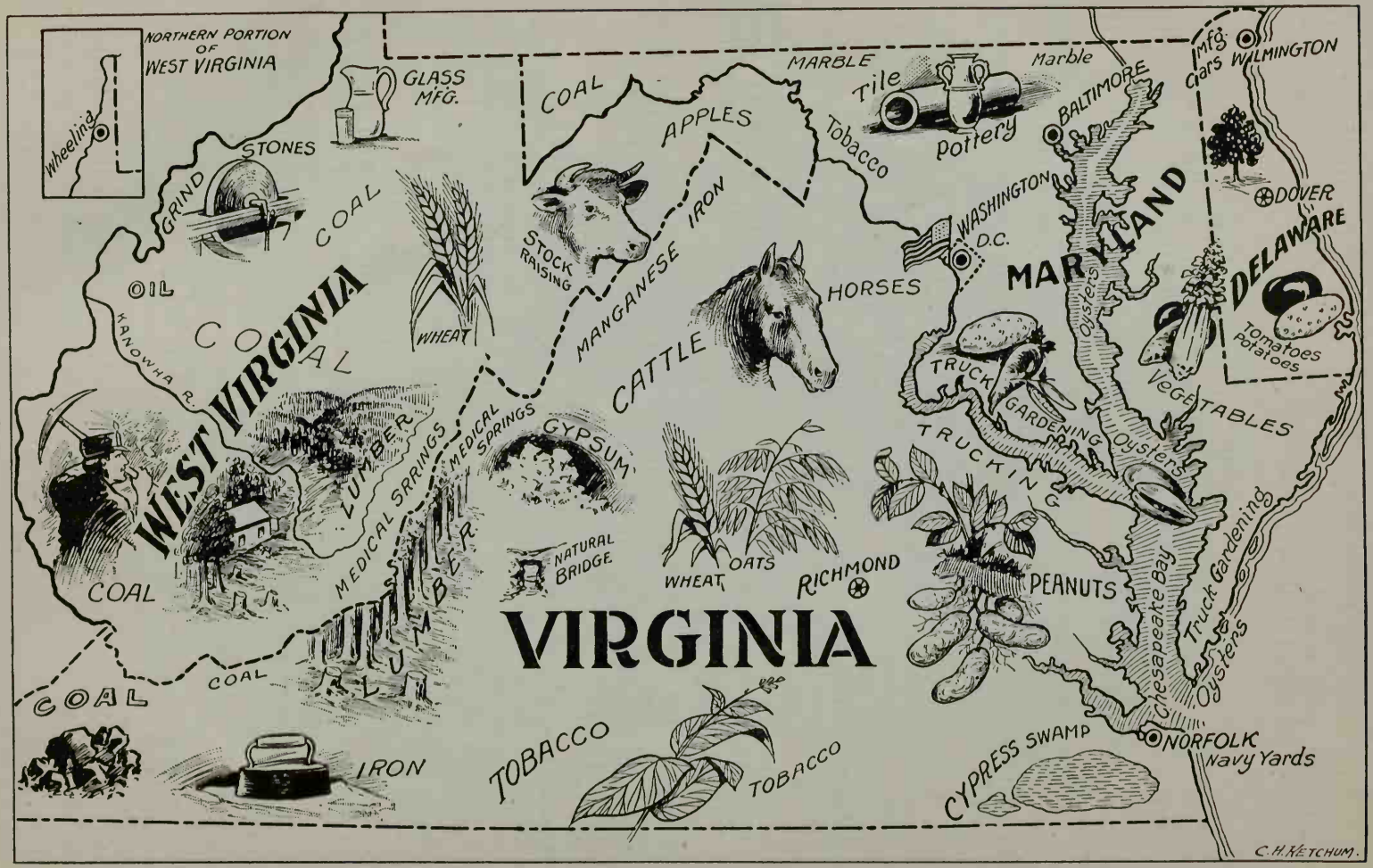
Delaware

(State article, 801)

Location.—The most southern middle state of the original thirteen states. Delaware is a part of the low peninsula between the Chesapeake and Delaware bays. This fact controls its climate, surface features and products. From its shape it is often called the Diamond State. From its location it is classed with the Chesapeake Bay states on the same graphic.

Area and Population.—Its area is 2,370 sq. miles. Its population in 1920 (Census) was 223,003, an average density (for its land area) of about 100 per sq. mile. The state of Nevada is about fifty times as large, but contains only about one-third the population of Delaware.

Manufactures.—It will be noticed that the northern part of the state is rep-


NORTHERN PORTION OF WEST VIRGINIA
Wheeling
GLASS MFG.
GRIND STONES
COAL
OIL
COAL
KANAWHA R.
WEST VIRGINIA
LUMBER
MEDICAL SPRINGS
COAL
COAL
COAL
LUMBER
IRON
WHEAT
COAL
APPLES
MARBLE
Tobacco
STOCK RAISING
MANGANESE IRON
CATTLE
HORSES
GYPSUM
NATURAL BRIDGE
WHEAT
OATS
RICHMOND
VIRGINIA
TOBACCO
TOBACCO
Tile
Marble
pottery
BALTIMORE
WASHINGTON D.C.
MARYLAND
Oysters
TRUCK GARDENING
TRUCKING
Oysters
PEANUTS
Chesapeake Bay
Truck Gardening
Oysters
CYPRESS SWAMP
NORFOLK
Navy Yards
Mfg. Cars WILMINGTON
DOVER
DELAWARE
Tomatoes
Potatoes
VEGETABLES
C. H. KETCHUM.

3946

resented as the manufacturing section. The city of Wilmington is one of the great manufacturing centers in the United States; the Brandywine River coming into the state from Pennsylvania forms an excellent harbor, and four miles from its mouth there are very considerable falls. The usual results of abundant water power follow. The Dupont Powder company's mills are located there; always of great importance, they have had an enormous development as a result of the war (3138).

Agriculture.—As represented the great industry of the state is agriculture. In the southern part of the state land, but a few years ago deemed worthless, is now producing enormous crops of potatoes. Peaches, though raised in abundance, are no longer the distinctively important crop of Delaware. All kinds of fruits and vegetables are grown; strawberries, tomatoes and melons are increasing in importance. As you can judge from its location, there is almost no waste land. Virtually the entire state is under cultivation. The whole eastern peninsula seems destined to become the general garden, fruit and vegetable section for the northern cities.

Maryland

(State article, 1786)

Location.—While Delaware is grouped as one of the middle states, it is closely connected with Maryland, Virginia and West Virginia in location, and all are represented on one graphic. Maryland embraces, so to speak, the Chesapeake Bay, dividing with Delaware the eastern peninsula, and on the west shore the territory north of the Potomac River.

Area and Population.—The area of Maryland is 12,327 sq. miles; a little more than one-fourth the size of Pennsylvania. Its population in 1920 was 1,449,661, or 145.8 to the sq. mile.

The Garden Section.—The graphic representation of the productions of the state show clearly the three great sections of the state. First, the coastal plain, including all the southeastern part of the state, embracing the Chesapeake Bay. It is a continuation of the low-lying surface features of southern New Jersey and Delaware. This is the great truck-growing, vegetable-gardening section of the state, raising immense crops of tomatoes, melons and small fruit. Maryland ranks first in the value of strawberries and tomatoes grown.

Chesapeake Bay.—The industrial life of eastern Maryland depends upon the Chesapeake Bay (566), which exerts a great influence upon the climate (622) and agricultural products, and thus the adjacent territory is excellent for truck farming. It is peculiarly fitted for oyster culture, which is one of the great industries of the state, and is a great resort for canvasback ducks. Of still greater importance is the fact that the bay furnishes Baltimore with an excellent harbor.

Manufactures.—The manufacturing part of the state is the northern part, with Baltimore as its center. Baltimore is one of the great manufacturing centers in the Union owing to its shipping facilities. It produces three-fourths of the cotton duck manufactured in the United States. Notice the location of the manufacturing belt, on the Piedmont Plain, corresponding in position to southeastern Pennsylvania, northern New Jersey and the manufacturing belt in New England.

Fruits and Minerals.—The northern, central and western sections of Maryland are the peach and tobacco part of the state. Approaching the mountains farther west, we have marble and coal; we are entering the Appalachian Mountain section of the state. Cumberland Valley is (759) noted for its scenery. The manufacturing industry is great and centers at Hagerstown and Cumberland.

Questions

Notice the Delaware and the Chesapeake bays. Into each a river enters.

Did the rivers have anything to do with the formation of these bays? (2996).

What constitutes Chesapeake Bay such a favorable location for oysters? (2135. The entire coastal plain is sandy.)

What do you think makes it such a favorite feeding ground for ducks? Give some reason for the manufactures grouping in the north part of the state?

What important college at Annapolis? (106).

What is the north boundary line of Maryland called? (1791).

What historic road commences at Cumberland? (1966).

What important battle was fought in western Maryland in the Civil War? (115).

Is there any interesting relation between railroads and Maryland? (2396).

What celebrated chief justice was born in Maryland? (2822).

Virginia

(State article, 3031)

Location.—The largest and most important state of the Chesapeake group of states. It is located on the south and east flanks of the Appalachian Mountains. Its direct ocean frontage is about 50 miles, but has about 75 miles fronting on the Chesapeake Bay; but both of these amounts will be increased if we consider the winding coast.

Area and Population.—Its area is 42,627 sq. miles; intermediate in area between Pennsylvania and Tennessee. It is a little larger than the Kingdom of Greece. Its population in 1920 was 2,309,187, an average density of nearly 57.4 per sq. mile.

The Garden Section.—The graphic showing the products of the state indicates three different sections. The coastal plain, extending from near Washington, south across the state, also called the tide water section, is a continuation of the garden belt of Delaware and Maryland. The great industry is truck-ing. Peanuts are a very important crop. Much of this section is swampy. Notice the cypress swamp in the southeast corner of the state.

Agricultural Section.—To the west is the agricultural and manufacturing belt of Virginia; live stock, grain and tobacco. Virginia is one of the great tobacco growing states. About one-third of the total crop grown in the United States is raised in Virginia. That part of the state is also the manufacturing belt, located, as it is, elsewhere from the southern New England states to Virginia. This is the scenic part of the state; beautiful valleys, graceful hills and dashing streams. Where the streams cut down to the coastal plain water power is well developed, as at Richmond and Fredericksburg.

The Mineral Section.—In the western part of the state, extending in a long curved line to the southwest, is the mountainous section of Virginia,—lumber, quarry products and coal. Notice, this is the southern flank of the Appalachian Mountains.

Questions

Both Maine and Virginia have indented coast lines, but how do the indentations differ? (Are both rocky coasts?)

What makes this difference? (Which one is nearer to the original mountain uplift?)

Compare the surface features of the states thus far considered. Notice, the three great belts of surface features,—the scenic, manufacturing and garden belts,—maintain the same relative position in the same general direction from northeast to southwest. The three northern New England states are almost entirely in the scenic belt; the southern New England states in the manufacturing belt; the garden belt begins in New Jersey.

Do you see any relation between manufactures and population? Compare Virginia with Massachusetts in area, population and industries.

Mention the presidents born in Virginia (3072, 1497, 1740, 1897, 1277, 2835,

3140). A celebrated orator of early times (1305). A great general (1611). What great jurist? (1782). What novelist of the present? (1514).

West Virginia

(State article, 3108)

Location.—West Virginia extends as far north as central Pennsylvania, as far east as central Virginia, as far south as central Kentucky and as far west as central Ohio. It occupies a pocket, so to speak, between these four states, on the west flank of the Alleghany Mountains (77). It is also one of the oldest—yet youngest—of our states. As a part of Virginia its history goes back to colonial times; separated from Virginia in the troublous times of the Civil War, it is among the younger states of the Union.

Area and Population.—Its area is 24,170 sq. miles, four-sevenths as large as Virginia. Its population in 1920 (Census) was 1,463,701, or an average population of nearly 60.9 to the sq. mile; somewhat larger, notice, than Virginia itself.

Surface Features.—The surface features are well represented on the graphic. We must understand, however, that the northern part of the state is also broken and rough, but more subdued than the southern part, and, notice, in the wider valleys of the northern part we find increased agricultural possibilities; that part of the state wedged in between Maryland and Virginia is the best agricultural section. Corn is the most valuable crop produced; wheat, second.

Natural Resources.—A very large part of West Virginia is heavily forested and the production of lumber is very great. Coal is represented in the southern part of the state, but it is by no means confined to that section. The coal area of the state is estimated at 17,000 sq. miles; larger than the combined coal area of Europe, exclusive of Russia. Estimating the present production of bituminous coal in the United States at five hundred million tons per year, West Virginia could supply that amount for more than three centuries.

Oil and Gas.—Notice the location of the oil and gas territory,—to the west of and a little removed from the great coal fields,—and compare with location in Pennsylvania. Both of these products are still largely produced in West Virginia.

Manufactures. — Manufacturing in West Virginia is at present only a fraction of its probable development in the near future. From 1900 to 1915 manufacturing in the state increased nearly 100 per cent. To judge the future, remember the union of timber, coal and gas, immense sand deposits for glass manufactures, almost boundless water power awaiting development, and a navigable river to carry the products of the state to the world at large. The government has erected at Charleston one of its great nitrogen fixing plants.

Questions

Why are there no lakes in West Virginia?

There must be some reason why the great Appalachian coal field is mainly to the west of the mountain upheaval. Study coal (631); determine, if you can, the reason. We will perhaps find it before we finish the coal deposits in the states.

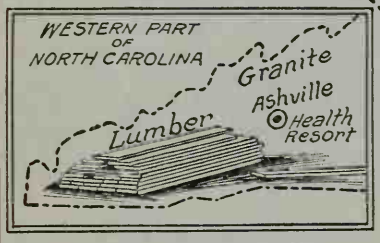
There are about thirty different seams of coal underlying West Virginia. What mental picture does this afford you of the geological history of the state? (631).

Compare the Chesapeake group of states (Delaware, Maryland, West Virginia and Virginia) with the New England group as to area, population, manufactures, etc.

Is there any reason why West Virginia should not develop as great manufacturing interests as the southern New England states?

Many of the rivers of West Virginia have excavated narrow, deep valleys, called canons. Explain about them. (494).

NORTH CAROLINA



SOUTH CAROLINA

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North Carolina

(State article, 2053)

Location.—The two Carolinas are so intimately connected in early history that they are represented on one graphic. North Carolina is one of the South Atlantic states, situated west of Gibraltar and north of Cuba. Broadly speaking, its coast line occupies the center of the Atlantic coast line of the United States.

Area and Population.—Its area is 52,426 sq. miles, intermediate in size between Arkansas and Alabama, a little more than three-fourths the total area of New England. Its population in 1920 was 2,559,123, an average of some over 52.5 per sq. mile. It will be noticed that this population is considerably less than the present population of Chicago, or slightly more than half that of New York City.

Surface Features.—A careful study of the graphic shows the presence of the three belts of production that characterize the Atlantic coast states from New Jersey south, in the same relative position. The presence of cotton in the garden belt shows that we are entering the cotton growing section of the South. (See "Cotton" 719.) Notice, truck gardening in general, strawberries in the south and flower bulbs in the north. The indented shores, so characteristic of the coastal plain, so different from the indented shores of New England, explain the importance of North Carolina fisheries. The state leads all others in herring fisheries.

Manufactures.—The manufacturing belt lies, as usual, further inland, and is in all respects similar to the same belt in the other states of the Atlantic seaboard and the southern New England states. This is also the fruit, corn, and tobacco section of the state. North Carolina is the second state in the production of tobacco; notice the manufacturing of tobacco at Durham (876). The state is second only to Massachusetts in the value of cotton manufacture. This result is rendered possible by the development of water power. It must be noticed that the manufacturing belt from southern New England state on is plentifully supplied with water power. The state manufactures one-fifth as much cotton goods as England, one-third as much as Germany, and one-half as much as France. (In all cases the years preceding the war are meant.) The manufactured products of the state in 1914 were valued at $289,412,000.

Scenic Section.—Still further west, occupying the flanks of the Appalachian System of mountains, is the belt of rugged, timbered mountain peaks; in all respects similar in scenic features to the same section in the states already described. The quarry products remind us of those of Vermont since we have granite, slate and mica. The rare metal, thorium, is not obtained elsewhere in the United States; other valuable minerals are produced (3054).

Questions

There is some coal in North Carolina, but it is not at all important. Can you give any reason for this? (Consider its location with reference to the Appalachian mountains.)

Why is there no gas or petroleum in North Carolina? (Do you know of these products anywhere important east of the Appalachian Mountains?)

Have you anything in your house that perhaps came from North Carolina? (Do you use gas in your house for light? 2880.)

The quarry products are similar to those in Vermont. Do you conclude the mountains in the southwest are more like the Green Mountains of Vermont? (See 2049. The Alleghany Mountains are only the connecting links of the series.)

Compare North Carolina with Massachusetts in population and manufactures; can you give any reason for or against great development of manufactures in North Carolina? Consider power,—coal and water; nearness to raw material,—cotton, wool, leather, paper,

iron; and markets. In what does Massachusetts lead? Do you think the manufacturing possibilities of North Carolina equal to those of West Virginia?

Compare your own state with North Carolina in all these points.

Name a great health resort in North Carolina (2054).

South Carolina

(State article, 2699)

Location.—South Carolina is one of the southern states of the original thirteen states; wedged in, as it were, between North Carolina and Georgia. In the same longitude as western New York, the same latitude as southern California.

Area and Population.—Its area is 30,570 sq. miles, about five-eighths the size of North Carolina, intermediate between Maine and West Virginia. Its population in 1920 was 1,683,724, an average of some over 55.2 per sq. mile. Its population is not greatly different from that of Philadelphia.

The Garden Belt.—The same general surface features we have been considering. From the state graphic we conclude that the garden belt, otherwise known as the coastal plain, occupies the southeast half of the state; notice, peanuts, strawberries, garden truck and cotton. A new product, rice, makes its appearance in the low-lying swampy sections of the southwest coastal. (See Rice 2440.) This is distinctively a southern crop.

Forests.—Much of the coastal plain is forested with the long leaf pine. One of the products of this tree is turpentine (2945). Cotton is a very important crop, but notice in the southwestern part of the state that variety of cotton known as Sea Island cotton (720).

The Agricultural Belt.—As shown on the graphic the next belt is the agricultural belt,—corn, tobacco, and fruit belt. A new product makes its appearance, tea; a result of efforts made by the government to introduce the culture of tea in this country. The only drawback to such culture is the scarcity of cheap labor.

Water Power.—In the southern New England states there is no well defined coastal plain. From New Jersey south there is such a low-lying garden belt. The line of descent from the central belt to the coastal plain is well marked and known as the fall-line. All the rivers passing over that line generate excellent water power. South Carolina is well provided with such rivers; consequently there is an abundance of water power, and manufacturing is rapidly advancing. Nearness to cotton indicates that the textile industry is very great. The total of all manufactures in 1916 was $168,617,788.

Appalachian Highlands.—In the northwest corner of the state we are upon the southeastern flanks of the Appalachian Mountains. Notice the presence of granite; from this you can draw interesting conclusions concerning the character of the mountains. (See "Black Mountains" 314.) Note their similarity to the White Mountains of New Hampshire.

Questions

Compare textile manufacturing of Columbia, South Carolina (637) with Lowell, Massachusetts (1711). Nearness to raw material? Abundance of power? Markets? Climate?

Immense deposits of phosphate rock in South Carolina (1776). In which of the three belts would you expect to find it? Give your reasons.

There is a fort in Charleston harbor of great historic interest. What one is it? (1070).

What great general in the Revolutionary War was born in South Carolina? (1775). What distinguished statesman? (449). What orator participated in a great debate in Congress? (1289). South Carolina was conspicuous in 1832. How? (2069).

Can you trace any connection between that and the Civil War?

Georgia

(State article, 1151)

Location.—Georgia is the southwestern state of the thirteen states, originally bordering on Spanish territory to the south. It completed the fringe of states along the Atlantic coast from British to Spanish possessions. It is in the same longitude as Detroit, in same latitude as northern Mexico.

Area and Population.—It is the largest state east of the Mississippi,—its total area being 59,475 sq. miles, nine-tenths as large as New England. The line of greatest distance in the state would extend from Chicago to St. Paul. Its population in 1920 (Census) was 2,895,832, about two-thirds the population of Massachusetts, which has only one-seventh of its area.

The Garden Belt.—The coastal plain of the south Atlantic states includes all of southern Georgia. That entire section, being low and swampy, is covered with yellow pine forests that produce lumber and turpentine, as shown on the graphic. In the southern part of the state, Sea Island cotton (720) is raised. Georgia possesses more than half the territory in which that kind of cotton can be raised. Rice is grown near the sea coast; in amount, about one-sixth the total raised in the United States. A new product, sugar cane, is found. South Georgia is second to Louisiana in this respect. About eight million bushels of sweet potatoes and twelve million bushels of peanuts are raised yearly. All garden crops are raised. About 25,000 cases of canned asparagus are shipped from one of the northern counties of this garden belt. Southwestern Georgia is the great pecan producing section of the state.

This section is in all respects a continuation of the garden belt first noticed in New Jersey. The line between the garden belt and the manufacturing belt crosses the state from Columbus to Augusta. Tobacco, wheat, oats and corn, while growing over the state generally, flourish best in this belt, situated in the same relative position, notice, as elsewhere down the Atlantic coast.

Fruits.—Georgia is celebrated for her fruits. The state is first in the production of peaches. In 1912 over 7,000 carloads of peaches were shipped north. Thousands of carloads of melons are shipped yearly.

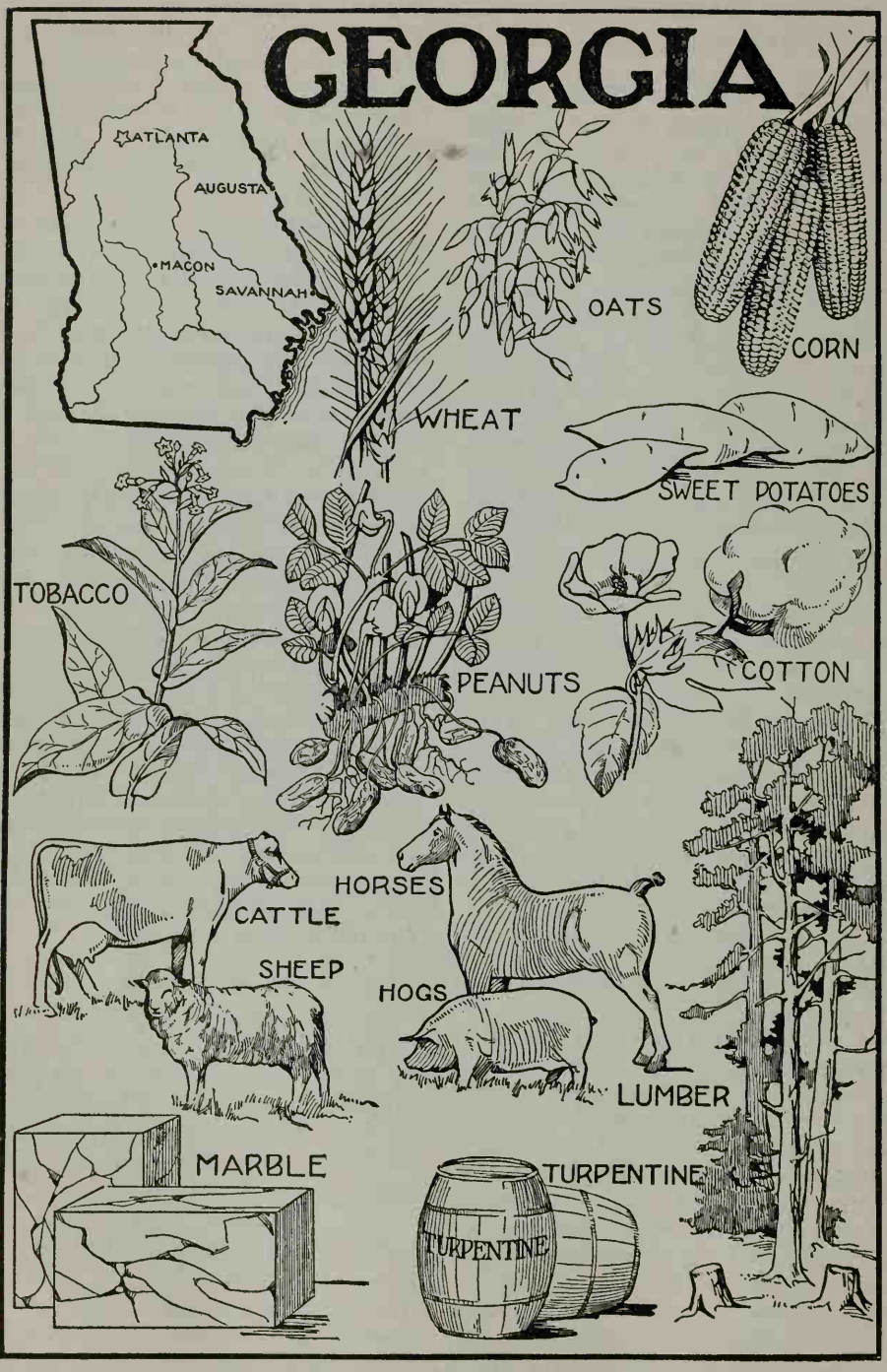
Manufactures.—As is the case from southern New England down, the belt bordering the Appalachian Highlands to the north is well supplied with water power. The total water power in Georgia, developed and undeveloped, is estimated at 1,000,000 horse power; consequently manufacturing is a great industry. Textile manufactures come first, there being nearly 200 cotton mills in the state. The manufactured products amount to about $250,000,000 yearly.

Mineral Resources.—The Appalachian Mountains enter the state at the northeast corner and curve to the southwest; that is the mining section of the state. The quarry products are strikingly similar to the products of Vermont,—such as marble and granite, also small amounts of gold and precious stones, generally found in connection with the oldest upheavals in geological history. Also, notice that the northwestern part of the state is to the west of the mountains, thus coal is found in such quantities that centuries of mining will not exhaust it.

A Review

Georgia completes the Atlantic coast states proper (Florida is in a class by itself), and thus all of the thirteen original states. Let us note some general characteristics. The surface features of all these states are controlled by the Appalachian Mountains.

The Highland Belt.—There is a highland belt on each flank of the mountains,—a region of rugged scenery; of quarry products, such as granite and marble. On the western slope is found bituminous coal, which is either absent


GEORGIA
ATLANTA
AUGUSTA
MACON
SAVANNAH
OATS
CORN
WHEAT
SWEET POTATOES
TOBACCO
PEANUTS
COTTON
HORSES
CATTLE
SHEEP
HOGS
LUMBER
MARBLE
TURPENTINE
TURPENTINE

on the eastern flank, or changed to anthracite in Pennsylvania that becomes graphite further north. Northern New England is entirely in that belt.

The Manufacturing Belt.—The highland section is succeeded on the south and east by a manufacturing belt that constitutes the whole of southern New England. From New Jersey down the coast this belt is known as the Piedmont plain; it is plentifully supplied with water power, and manufacture is highly developed.

The Garden Belt, or coastal plain. The manufacturing belt is succeeded towards the ocean by a low-lying, sandy or swampy coastal plain, whereon garden products of all kinds flourish. This plain represents a comparatively recent emergence from the sea.

Florida

(State article, 1045)

Location.—Florida is the southernmost state of the Union stretching southward from the main land a distance of 375 miles as if reaching for Cuba and the Antilles (3106). The long peninsula is narrow and no part of the state is more than 75 miles from the ocean. To the west are the warm waters of the Gulf; to the east the Atlantic warmed by the Gulf Stream, flowing like a river between Florida and Cuba (1246). It has been called the winter garden of the United States, bidding us a smiling welcome with flowers and fruits when most of the country is in the grasp of winter.

Area and Population.—Its area is 58,666 sq. miles; thus it is exceeded only by Georgia of the states east of the Mississippi in area. It is not greatly different in area from the northern peninsula state of Michigan. Its population in 1920 was 968,470, a density of nearly 17.7 to the sq. mile. It is interesting to compare this winter resort state with the summer resort state of Maine, since caring for tourist patronage is one of the chief industries in both states.

Features.—The state is a long, narrow prolongation of the coastal plain, or garden belt traceable from New Jersey down. It represents a comparatively recent elevation above the surface (compare with Maine). At no very great depth over the state generally is found a limestone floor over which sand and, in places, swampy deposits have formed. In countless places this limestone floor has been eroded by the action of water (969), leaving sink holes, ponds, and lakes with which Florida is dotted. (Compare with Maine and notice difference in formation.)

Everglades.—The Everglades of Florida is not a swamp district, but a great natural basin of limestone with a depression in the north that has become Lake Okeechobee. The soil of the glades is muck, from a few inches to a few feet in thickness, through which the waters seep on their slow journey to the sea. Immense canals are now draining the glades, which will be in time one of the most fertile sections of the world. Already, marvelous crops of sugar cane and rice are grown, and there are prospects of plantations of bamboo and rubber trees.

Springs.—Owing to the nearness of the limestone floor, in which underground water erodes great channels that sometimes unite to form veritable underground streams that here and there come to the surface, we note very large springs (2733). One at Wakulla, sixteen miles from Tallahassee, bubbles up in a circular inclosure 400 feet in diameter and gives rise to a river 250 feet wide,—deep enough to bear large vessels. Silver Springs in Marion County is in some respects more wonderful. These are among the largest springs in the world.

Flowers and Fruits.—Florida means the "land of flowers," and today Florida flowers and fruits are the great attractions of the state. They are the beautiful background against which we view the products of its fertile soil; the pleas-

ing crowns of its summerland attractions. On the graphic are represented some of its fruits; but as there are grown in Florida 72 varieties of temperate and tropical fruits, we have space to represent only one-tenth of that number. The most important are oranges, lemons, grapefruit, pineapples, and cocoanuts.

In 1914 the state produced nearly seven million crates of oranges; over two million crates of grapefruit; half a million of pineapples; over four million cocoanuts; and, in addition, large quantities of lemons, limes, avocado pears, bananas, mangoes, kumquat, guavas, and strawberries. (See Alligator Pear, 79; Kumquat, 1567; Mango, 1762; Guava, 1242.)

Flowering Shrubs.—There are three flowering shrubs, besides the orange blossoms represented on the graphic (see "Hibiscus," 1315); but these are only a few of the floral charms of the country. The Royal Poinciana (see "Palm," 2148), known as the flame tree, a native of Madagascar, flourishes in Florida and is said to be the showiest tree in the world. The swamp bay is a magnificent evergreen. In many sections live oaks are seen with branches festooned with Spanish moss. The largest plantings of cocoanut trees in North America are along the Florida Keyes.

Vegetables.—Being entirely in the garden belt, vegetables of all kinds are raised in profusion; nearly four million crates of tomatoes, and about 7,500 carloads of watermelons are raised yearly; besides immense quantities of celery, potatoes, and other garden vegetables.

Other Products.—As on the coast plain in other states, large parts are heavily forested with pine, and therefore lumber and lumber products are an important industry; Pensacola is the greatest pine-lumber port in the world.

Large quantities of sea island cotton are grown in the northern part of the state. As in other garden belt states of the South, large deposits of phosphate rock are found in the state, while along the Florida Keys are the only sponge fishing grounds in the United States. Key West is the most important cigar manufacturing center in the United States.

Tourists.—as in Maine, the tourist trade is of great importance, and along the east Florida shore are some of the most celebrated resorts in the world. It is the Mediterranean shore of the United States; as Maine is the Switzerland. One of the most wonderful railroads in the world is the East Shore Railroad to Key West,—for many miles the right of way lies over salt water, at certain points passengers are actually out of sight of land; viaducts carried on arches of masonry constitute more than nine miles of this extension.

Thus it is seen that Florida is one of the most interesting states of our Atlantic coast. It contains within its borders the oldest settlement in the United States. For more than thirty years after we were a nation the flag of Spain floated over Florida; from its shores in colonial times Spanish expeditions sailed for the conquest of the Carolinas. It has only just started on its career of development. When its swamps and everglades shall have been drained it will become more than ever the Winter Garden of the United States; and more than ever will its many charms attract tourists from other sections.

Questions

Explain about the Gulf Stream.

Why is not New England warmed by that stream?

Suppose the bottom of the sea between Key West and Cuba were to rise and shut off the Gulf Stream, how would that affect the climate of Florida?

Compare the indentations of the Florida coast line with the New England coast line; what is the difference?

From what you know of its surface features, is there any chance for water power development in Florida?

Will Florida ever be a great manufac-

turing state? (Do you know of any great factories in the garden belt?)

What causes Key West to be such a great tobacco manufacturing center?

Where do you suppose the water that forms Wakulla Springs comes from? Where is the highest part of Florida?

A section of country as large as Connecticut remains to be drained in Florida; if you had a farm there would you raise corn and wheat, or fruit and vegetables?

Pomegranates grow in Florida; do they grow anywhere else in the United States? (2308).

An immense amount of phosphate rock is found in Florida; what is it good for? (2248).

What is meant by Florida Keys? (1045).

Are sponges fishes? (2730).

Cocoanuts grow wild on the Florida Keys; how did they get there? (638).

Alabama

(State article, 44)

Area and Population.—It is midway between Mississippi and Georgia in position, area and population. Its area is 51,998 sq. miles, nearly half as large as Italy. Its population in 1920, U. S. Census, was 2,348,174, or an average density of nearly 45.8 to the sq. mile.

Surface Features.—We can deduce the striking characteristics of its surface features from the graphic representative of its industries. From New England down the coast we find the surface features controlled by the Appalachian Mountains. These mountains, entering Alabama from Georgia, spread out in a series of parallel ridges, intervening valleys, and low hills, which die away in the north central part of the state. This mountain area is the mineral section.

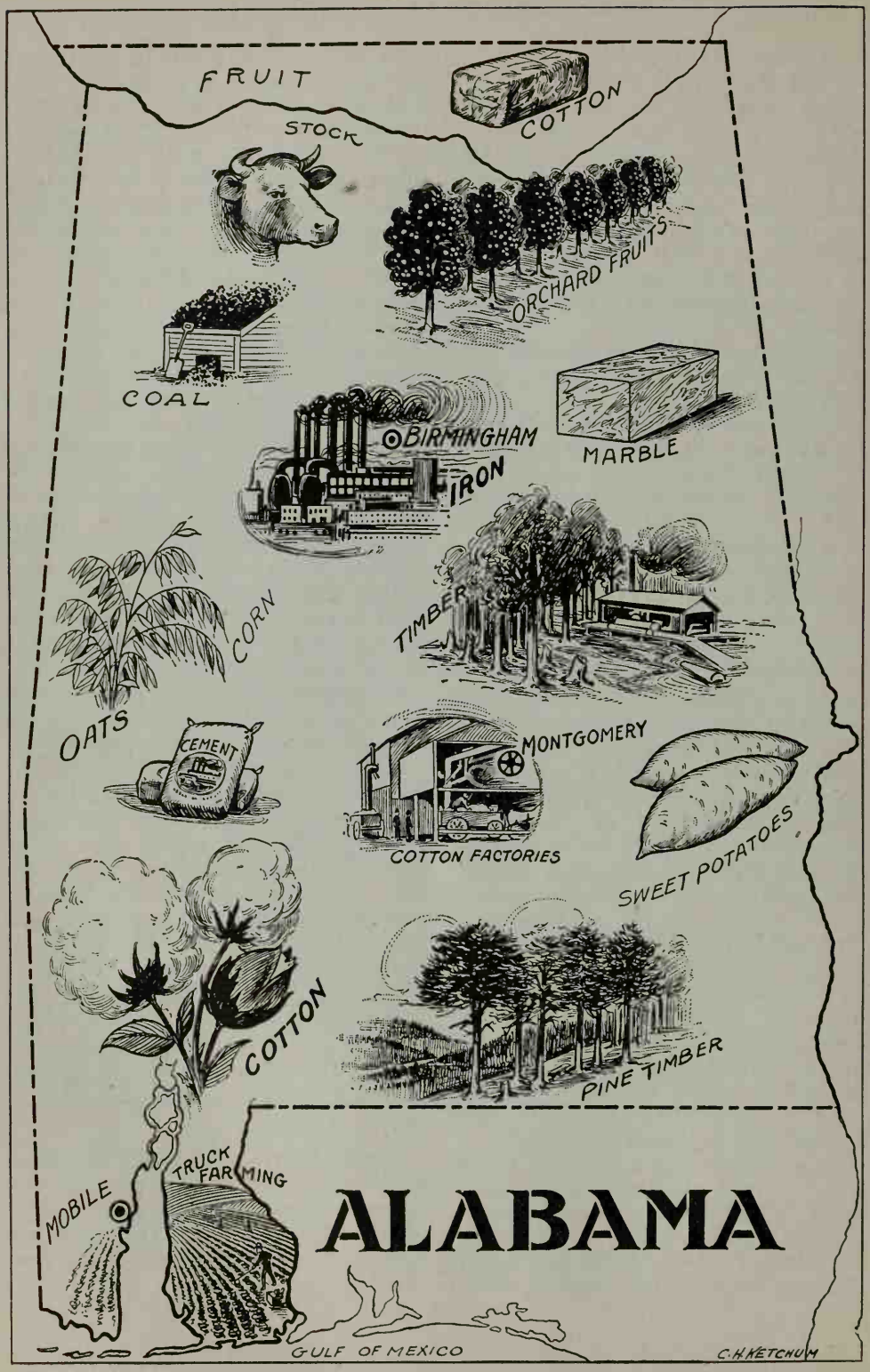
Coal.—True to what we have found to be the facts elsewhere, the greatest extent of coal land is on the western slopes of these hills, though immense fields of coal are found in the intervening valleys and on the southern slope. The most southern coal fields in the United States are situated in central Alabama. In Pennsylvania attention was called to the fact that anthracite, or hard coal, was found east of the main Appalachian ridges. It is interesting to note that the coal fields in the intervening valleys and southern slopes of the Appalachian ridges in Alabama contain a harder coal than the coal in the great bituminous fields to the west.

Iron Deposists.—We noticed some iron on the Appalachian highlands in north New Jersey. These deposits occur in corresponding positions down the eastern coast generally. Just where the mountains are dying away in Alabama, in the intervening valleys and eastern slopes are located the richest deposits of iron so far found in the United States, except those located in the Lake Superior regions. What must be noticed at once is that vast deposits of iron and coal occur in close proximity. Nowhere else in the United States, nowhere else in the world, is there a similar combination.

Agriculture.—Notice, stock, fruit and cotton in the Tennessee Valley. Corn and oats flourish in the valleys of the manufacturing belt generally. South of the center of the state we notice cotton, sweet potatoes, pine trees, and truck-farming. This part of the state is the coastal plain or garden belt of the Atlantic states, swinging to the west in Alabama, but in the same relative position to the Appalachian highlands and manufacturing belt.

Lumber and Lumber Products.—As on the coastal plain, generally from North Carolina down, immense forests of pine are found, and lumber, turpentine and rosin are all prominent industries in the state.

Water Power.—Alabama is rich in undeveloped water power; enough power is going to waste to turn every wheel in the state. The Tombigbee and Warrior rivers, from Mobile to near Birmingham, have been rendered navi-


FRUIT
COTTON
STOCK
ORCHARD FRUITS
COAL
BIRMINGHAM
IRON
MARBLE
TIMBER
CORN
OATS
CEMENT
MONTGOMERY
COTTON FACTORIES
SWEET POTATOES
COTTON
PINE TIMBER
TRUCK FARMING
MOBILE
ALABAMA
GULF OF MEXICO
C.H.KETCHUM

gable by the erection of 18 dams and locks. It will thus be seen that Alabama enjoys the three-fold advantage of raw material (iron, cotton and lumber), potential power (coal, water), and access to markets (water to Mobile).

Questions

Considering the Appalachian Mountains as a whole, do the slopes facing the sea and the interior of the country differ in drainage facilities? (Think this over.) Does this fact explain to any degree the deposits of coal, almost exclusively on the side facing the interior? (See formation of coal, 631.)

If that be true, would it in any way explain the formation of hard coal on the eastern side of the mountains?

What great deposits of iron other than Alabama in the United States?

Compare Alabama and Pennsylvania as manufacturing states, in raw material, iron, lumber, cotton, etc.; nearness to sources of power (coal, water power); nearness to markets. Which state has the greater natural advantages?

Mississippi

(State article, 1871)

Location and Description.—Mississippi occupies what was once the southwest corner of the United States. It is the westernmost of the southern tier of states between the Mississippi River and the Atlantic. It is located between the 30th and 35th parallel of latitude, which is said to be the zone of greatest fertility around the world generally. Mesopotamia, the granary of the ancient world, is in the same zone.

Area and Population.—Its area is given as 46,865 sq. miles; its population in 1920 (Census) was 1,790,618, an average population of nearly 38.6 per sq. mile.

Surface Features.—Thus far the surface features of the states described are controlled by the Appalachian Mountains; in this group of states they are controlled by the Mississippi River; we are entering the Mississippi Valley. Only in the northeastern part of the state do we come on a stretch of the belt that we have found associated with the highland region of the other states.

Cotton is represented in the northwest part of the state, the Delta region. However, cotton grows in other sections, and the Delta itself produced enormous crops of other farm products. Mississippi is one of the great cotton states of our country, and cotton is still the principal crop of the state. In quality, it is said to be above the general average of cotton grown in the South.

The central part of the state is said to be the natural home of peaches, strawberries, and similar fruits. Figs can be grown almost anywhere in the state; in quality and quantity they are unsurpassed by those grown anywhere in the world.

Lumber.—The southern part of the state is the coastal plain, here joining with the river plain. In this section are extensive forests of long leaf pine, and lumber, turpentine, and rosin are important products. Gulfport on the coast is one of the great lumber ports of the country. Naturally, the trucking interest of this part of the state are very great,—Crystal Springs, Hazelhurst and other towns in that section have attained a national reputation for the quality and quantity of the truck crop grown and shipped. Oranges are represented in the southern part of the state, and in that same section considerable sugar cane is raised.

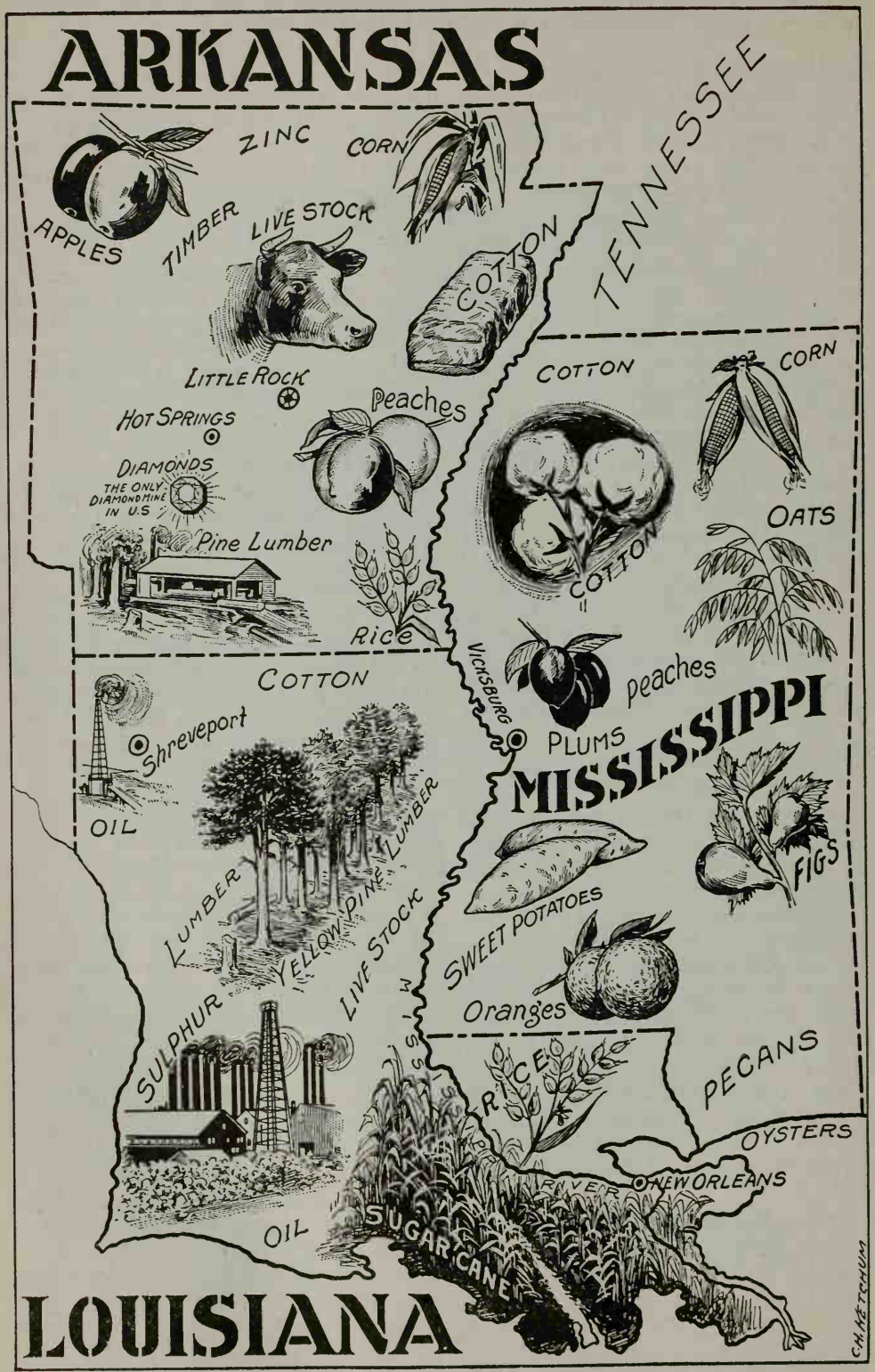
Questions

Where was Mesopotamia? (1823).

Trace the zone from 30 to 35 north latitude around the earth, as a matter of fact is it a zone of great fertility?

In the first period of our national history, what country fronted Mississippi on the west? (1704).

Was Mississippi a part of the Louisiana Purchase?


ARKANSAS
TENNESSEE
ZINC
CORN
APPLES
TIMBER
LIVE STOCK
COTTON
LITTLE ROCK
HOT SPRINGS
Peaches
DIAMONDS
THE ONLY DIAMOND MINE IN U.S
Pine Lumber
Rice
COTTON
CORN
COTTON
OATS
COTTON
VICKSBURG
peaches
PLUMS
MISSISSIPPI
Shreveport
OIL
LUMBER
YELLOW PINE LUMBER
LIVE STOCK
FIGS
SWEET POTATOES
Oranges
SULPHUR
RICE
PECANS
OYSTERS
RIVER
NEW ORLEANS
SUGAR CANE
OIL
LOUISIANA
C.H. KETCHUM

Mississippi is a great cotton producing state. Mention some of the uses of cotton (720 and Story of Cotton). How was cotton used to win the world's war? (1747).

Do you see a possible connection between the prosperity of Lowell, Massachusetts, and the Mississippi cotton fields? (Consult the graphic discussion of Massachusetts.)

But the prosperity of Mississippi was much advanced by a Massachusetts man, who was he? (3125).

Do you think Mississippi will ever be a great manufacturing state? (Consider the question of potential power.)

Can it ever compete with the states around the Chesapeake Bay, as a trucking state? (Consider the question of markets.)

But what can you raise in Mississippi that you cannot raise around the Chesapeake? (Study the graphics.)

The northwestern part of Mississippi is called the Delta. Is it a true delta?

How does your state compare with Mississippi in area? Population? and products?

Louisiana

(State article, 1701)

Location.—Beginning in the south, Louisiana is the first state west of the Mississippi including in its territory the lower reaches of the river. Examining the graphic, you note that it is the southern base, so to speak, of the three lower Mississippi states.

Surface Features.—A very large part of the state is "the gift of the Mississippi." The fertile, low-lying, swampy delta of the Mississippi is still growing seaward, as it has been for ages, slowly increasing the area of the state. All the south and southwestern part of the state is the gulf and river plain. That is the sugar cane, rice and semi-tropical fruit growing section of the state. The river plain fronts the river all along its eastern boundary. To the north and west is a higher section, much of which is covered with pine forests. Still to the north the surface is controlled by the Ouchita Hills, a part of the Ozark Mountain system in Arkansas. That section is the oldest part of the state; all the lowland section is recent.

Area and Population.—Its area is 48,506 sq. miles. More than forty-five per cent of that is alluvial land,—the river and gulf plain. It is not greatly different from Mississippi in area. The population in 1920 (Census) was 1,798,509, an average population of 39.6 to the sq. mile.

Agriculture.—Practically all crops of the temperate zone can be grown in the upland areas of Louisiana. Vegetables of all kinds are grown over the state generally. Thousands of acres are devoted to truck farming. Fruits of all kinds can be grown anywhere, but many varieties flourish best on the uplands. Strawberries are largely grown for the northern markets. Six million dollars' worth of strawberries were shipped from one parish in Louisiana in one year. Pecans grow abundantly all over the state.

In the south part of the state and along the river semi-tropical fruits grow in abundance. Oranges, kumquats and pomelos (grapefruit) are grown throughout south Louisiana; lemons, guaves, bananas and pineapples are grown on the extreme gulf coast.

The distinctive crops of Louisiana are cotton, sugar cane and rice. It produces more rice than any other state in the Union. The same statement is true of sugar cane. There is one 10,000-acre sugar plantation in Louisiana, with its own mill, capable of grinding 1,200 tons of cane a day. Cotton is a crop of very great importance. These crops are represented on the graphic in that part of the state where they flourish best.

Lumber.—As depicted in the graphic, lumber interest is very prominent in Louisiana. In 1914 Louisiana was the largest producer of lumber in the Union. There is one sawmill in the state

—the largest one in the world—capable of producing 1,000,000 feet of lumber a day.

Mineral Wealth.—Louisiana is blessed with important mineral resources. What is probably the largest sulphur deposit in the world is in Louisiana. Oil is represented in the northwest corner of the state (the Caddo district) and in the south. The entire state seems to be underlaid with rock salt deposits, and what is perhaps the largest salt mine in the world is in the southern part of the state. Coal is found in the northwestern part of the state.

Manufactures.—Owing to nearness of raw material (cotton, lumber), available power (oil, coal, gas), fertile soil and transportation facilities (by water to New Orleans), the manufactures of Louisiana are rapidly increasing.

Questions

What is one explanation of the origin of the salt deposits of Louisiana? (2789).

Do you think there was ever great volcanic activity in that section? (Consult "Sulphur," 2788.)

Why is sulphur so important at present? (See "Smokeless Powder," 3670; see "Wood Pulp" in article, "Paper.")

How do they mine the sulphur?

Compare the fruits of south Louisiana and Florida.

How do the mineral products compare?

Notice the location of New Orleans. What canal is destined to greatly influence the future trade of that city? (2151).

Describe the route taken by a ship load of cotton from New Orleans to Japan.

What bird builds its nest in New England but spends the winter season of the year in Louisiana? (306). Mention other interesting incidents of that bird (3424).

You have now discussed the south Atlantic and Gulf States (except Texas). What ones are best suited for manufactures? What for agriculture? What for fruits?

Arkansas

(State article, 147)

Location.—Arkansas is the northwestern state of the three states represented in the graphic. It is the second state bordering the Mississippi on the west as we journey up the river.

Area and Population.—Its area is 53,850 sq. miles; thus it is the largest of the three states in question. It is just about one-half the present area of France. Its population in 1920 (Census) was 1,752,204, or an average density of 33.4 to the sq. mile.

Surface Features.—We are now well into the Mississippi Valley; but in early geological times the Gulf of Mexico extended to about the present mouth of the Ohio River, so the three states described have each considerable territory forming part of the ancient gulf plain. A line drawn diagonally across the state from the northeast to the southwest would nearly divide the state into the ancient gulf plains and the more elevated section.

Productions.—In the southeastern half of the state,—the lowland,—we find the same products as in corresponding sections of Mississippi and Louisiana, except that there are no semi-tropic fruits, such as oranges, lemons, etc. Cotton, rice, and peaches should be noted; however, peaches grow generally over the state.

Lumber. — Lumber is represented in the southwest; but we must understand that Arkansas is a heavily forested state, and lumber is second to cotton as a state product in value. The northwestern part of the state, rugged in features, is the section where the hardier fruits, grains, grasses, and live stock flourish; thus corresponding in position to the location of similar crops in other states. Apples, represented in the northwest corner, are a distinctive crop of that section.

Mineral Products.—We would naturally expect the mineral products of the

state to be confined to the northwest half of the state, and, further, they would tend to gravitate to the two corners of the state; clustering, so to speak, around the Ozark and the Ouchita Hills. Very large deposits of semi-anthracite coal are found on the southern flanks of the Ozark hills, while large deposits of lignite coal occur on the northern flanks of the Ouchita Hills. Notice the difference of the coal in the two locations. Zinc and lead occur in the northern part of the state in the Ozark field, and immense deposits of bauxite (from which aluminum is obtained) are found south of Little Rock, in connection with the lignite deposits. Finally in southern Arkansas is located the only diamond mine in the United States, and hot springs with medicinal properties are located in the same section.

Questions

What is a national forest? (1063).

In what state or territory is the largest one located? (1063).

Rice is represented growing on the lowlands, do you think you could raise it in the western part of the state? (2439).

Diamonds are represented in the same section as hot springs, is their any connection between those two facts? (Consider how diamonds are formed, and how the hot springs get their heat).

What element is common to diamonds and coal? (500).

In what other section of the world are diamond mines located? (1552).

Do you know of any hot springs except in mountainous sections?

What is lignite? (632).

Notice the Ozark coal is semi-anthracite; the Ouchita hills coal lignite. Does this tell you anything about the difference in the mountains? Which is the older? Which subjected to the greater pressure?

What is zinc used for? (3194).

Most of the small illustrations in the Reference Work have a relation with zinc. What is it? (3194).

Which, in your judgment, is the more valuable fruit, apples or peaches?

Kentucky and Tennessee

Kentucky and Tennessee are two states so closely connected in many respects and have so much early history in common that they are represented on one graphic. Study their position on the graphic, also their location on a map of the United States. Notice, that these two states have their lines of greatest length east and west. All other states (except the original thirteen states and Ohio) east of the Mississippi have their lines of greatest length north and south. There is, of course, a reason for these facts. (Note questions following.)

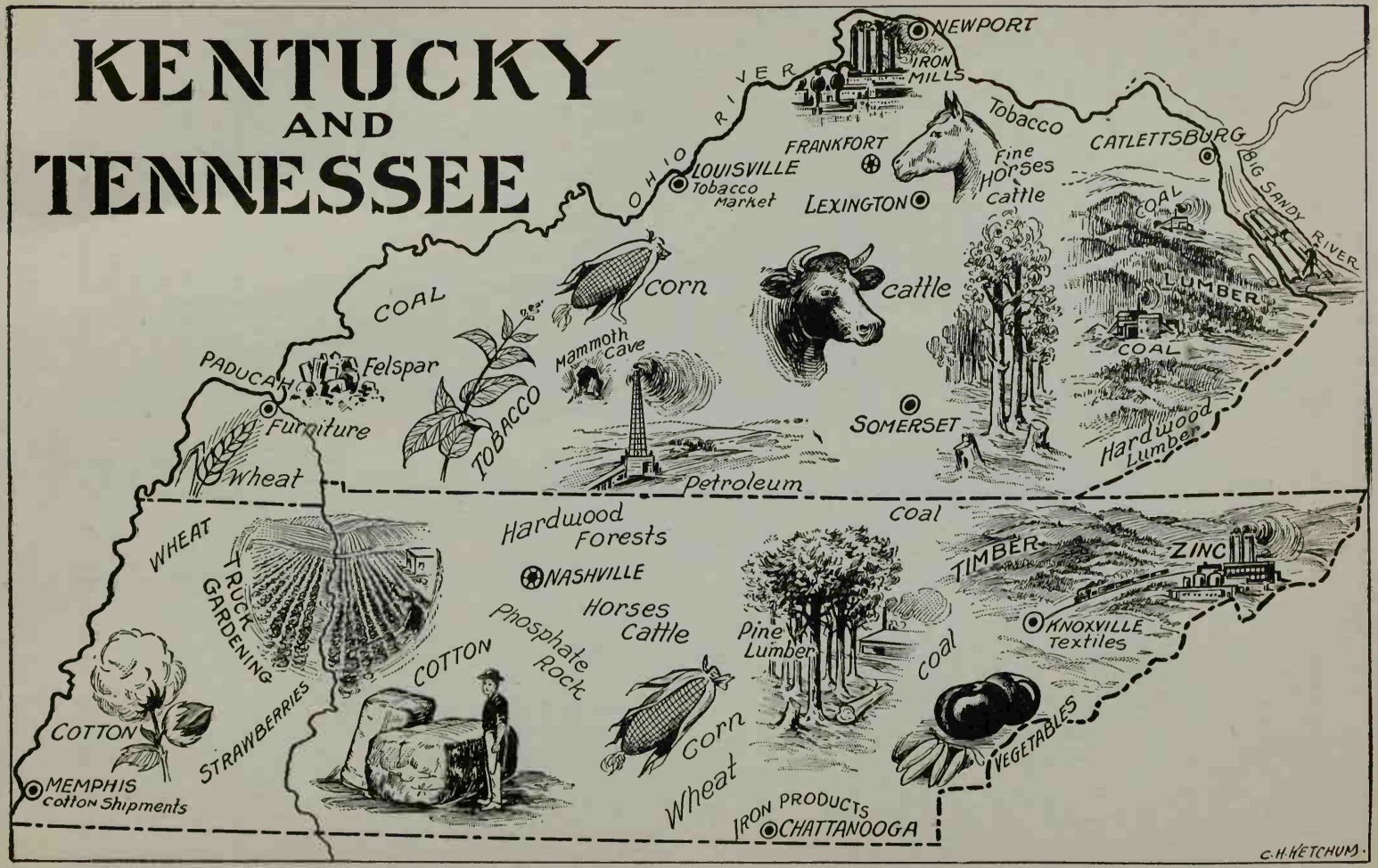
Tennessee

(State article, 2851)

Area and Population.—Tennessee is the southern state of the two states resting on the tier of three gulf states as a base. It is in area 42,022 sq. miles. Its population in 1920 (Census) was 2,337,885, an average of some over 54 per sq. mile.

The Graphic.—A close inspection of the graphic acquaints us with the principal products of the state, the sections of the state in which they are produced most readily, and informs us of the surface features. It must be carefully studied as a whole.

Mineral Products.—We would naturally expect quarry and mine products to be in close proximity to the broken, confused, upheaved flanks of the Appalachian Mountains in the eastern section of the state. From what we have learned about the age of these mountains (see "Granite," 1211), we know we can expect to find granite and marble; and, being on the western slope of the mountains, we are not surprised to learn of the presence of immense beds of bituminous coal (not anthracite, notice). There are also forests of hard wood timber,—there are more than one hundred and forty varieties of trees growing in Tennessee: forests of pine are represented in the Sequatchie Valley north of Chattanooga.


KENTUCKY
AND
TENNESSEE
NEWPORT
IRON MILLS
OHIO RIVER
Tobacco
CATLETTSBURG
BIG SANDY RIVER
FRANKFORT
Fine Horses
Cattle
LOUISVILLE
Tobacco Market
LEXINGTON
COAL
LUMBER
COAL
corn
cattle
COAL
Mammoth Cave
PADUCAH
Felspar
Furniture
TOBACCO
SOMERSET
Hardwood Lumber
Wheat
Petroleum
coal
WHEAT
Hardwood Forests
TIMBER
ZINC
TRUCK GARDENING
NASHVILLE
Horses
Cattle
KNOXVILLE
Textiles
Phosphate Rock
COTTON
Pine Lumber
coal
COTTON
STRAWBERRIES
Corn
VEGETABLES
MEMPHIS
Cotton Shipments
Wheat
IRON PRODUCTS
CHATTANOOGA
C. H. KETCHUM.

3964

Zinc.—Some zinc has been noted in connection with the Appalachian Mountains in the other states. In northeastern Tennessee the deposits are much richer and, owing to recent demands, zinc mining has become a very important industry. Copper is also an important product.

Iron.—We have noticed the presence of iron in connection with the Appalachian Mountains generally, and called attention to the deposits in Alabama. Chattanooga is in the center of an iron producing section of Tennessee.

Phosphate Rock.—Note the presence of phosphate rock; it is said to be the largest deposit in the United States. Observe its location,—some distance removed from the distinctively mountain section of the state; compare with location of similar deposits in other states (see Florida and South Carolina).

Manufacture of Powder.—During the European War, the general government established near Nashville one of the largest powder producing plants in the world. Its capacity is 90,000 pounds of powder daily. When the necessity for such extensive production ceases a portion of its great facilities can be turned to the production of fertilizers from the phosphate deposits.

Agricultural Products.—The strictly agricultural part of the state is represented as occupying the center. We would expect that section to be not so broken but still elevated, corresponding to the agricultural belt we have traced in other states (see "Tennessee Surface," 2851). It is in fact an elevated plain, much of it bearing all evidence of being (as in truth it was) the bed of an ancient lake.

The River Plain.—Approaching the Mississippi River, we come to the lowland river plain, in ancient times the gulf plain, and, true to what we found to be the case in other states, we are in the cotton and garden section of Tennessee. Memphis is one of the great cotton markets of the South. Notice the presence of extensive truck farms.

Kentucky

(State article, 1544)

Area and Population.—Kentucky is the northern one of the two states in question. It is not quite so large as Tennessee, its area being 40,400 sq. miles. Its population is 2,416,630 (Census), or an average density of about 60.1 to the sq. mile (compare with Tennessee). It is the westward continuation of Virginia, and was once a part of that state (see "History of the State," 1547). The boundary line between Kentucky and Tennessee is a political line, not a natural one, and the two states are much alike in surface features and productions, as is evident from a study of the graphic.

Mineral Products.—The eastern part of the state is a confused, broken, rugged succession of mountain ridges and hills; it is the southwestward continuation of the surface features of West Virginia and is itself continued into eastern Tennessee. The southeastern part of the state is noted for its great scenic beauty (see "Kentucky Scenery," 1545). It should be compared with scenery in northern New England, due to the same mountain upheaval.

Coal and Timber.—There are immense deposits of bituminous coal, much of it passing into the cannel variety (631), found in that section (compare with West Virginia; also note its location). Coal is also noted in the western part of the state. Notice the presence of petroleum in the southern part of the state; that same section is underlaid with limestone. The broken section of Kentucky is also heavily timbered (notice raft of logs on Big Sandy), as is the same section in Tennessee.

Agricultural Belt.—The strictly agricultural belt, corresponding in position with a similar belt in other states, extends in a broad belt, diagonally across the state, joining with the same belt in Tennessee. The northern part of that belt in Kentucky is the blue grass section of the state,—the live stock, corn, wheat and hemp part of the state. The

ancient lake area that we noted in the agricultural belt of Tennessee extends also into same belt in southern Kentucky. The line of sandhills extending in a curve from near Louisville to near Catlettsburg is the ancient shore line of a glacial lake that filled the valley of the Ohio in glacial times.

Tobacco.—Tobacco is the distinctive crop of Kentucky. It is raised throughout the agricultural belt generally, but different grades are grown in the northern and southwestern sections (see "Kentucky Products," 1546). It is well to compare the production of tobacco in Kentucky with that in North Carolina.

Questions

Kentucky is the western continuation of Virginia; Tennessee, of North Carolina. Does that fact explain why the lines of greatest length run east and west? (Study "London Company," 1690, and work your way to an answer.)

Study "Ordinance of 1787" (2109) and determine why the lines of greatest length of the states carved out of the "Northwest Territory" (2061) run north and south. (Ohio is a slight exception.)

Determine in your own way why Alabama and Mississippi have their lines of greatest distance north and south.

Kentucky and Tennessee were among the first states admitted and, in a sense, the areas of these states were selected as about the requisite size for new states. This was followed until Texas was admitted. Now, why was Texas allowed to come into the Union with its enormous area—more than five times that of Tennessee? (Study "History of Texas.")

Study the matter of early settlements in Kentucky and Tennessee; note their location; explain why settlements began as they did.

In the mountain counties of eastern Kentucky is said to be found the purest Anglo-Saxon population in the United States. How does this happen? (This must be studied very carefully. Where did the first population come from?

Ohio

(State article, 2084)

Northwest Territory.—The states discussed in this and the following four graphics once constituted the Northwest Territory, and thus a peculiar interest attached to them as a whole, for that territory existed at a most interesting period in our history. (See 2060, also map in colored section.) In area it was about 250,000 sq. miles. It was ceded to the United States by Great Britain at the close of the Revolutionary War, largely as a result of the campaigns of Gen. George Rogers Clark (611). The five states formed from it are rich agricultural states, with great manufacturing facilities. It is interesting to note how the territory parted with portions of its area as the states, in the order which they now follow, were admitted into the Union. Finally the territory itself disappeared and a closely connected group of five states existed in its stead.

Ohio, by reason of its location and consequent influence it exerted in the early history of our country as a nation (after 1787) is a topic of great interest. Its location is the southeast corner of the old Northwest Territory. (See map of the Territorial Growth in colored section at end of this article.) Naturally, the section that afterwards became Ohio received the flood of settlers from the Middle and New England states and thus inevitably shaped, to a considerable degree, the political development of the territory itself.

Political Significance.—The significance of this fact must be kept in mind. That corner of the Northwest Territory soon received colonies from the eastern states. The earliest was a Massachusetts colony that settled at Marietta (1774). Its leaders were influential in shaping the Ordinance of 1787 (2109), one of the terms of which prohibited slavery in the territory. This was one of the little noticed facts at the time that subse-

quently tended to split the states into two distinct groups.

Connecticut Reserve.—We must recall how the Northwest Territory was formed (2061). Connecticut reserved as compensation for her territorial claims a section in the northeast corner of what is now Ohio. In area this was as large as the home state and was known as the Connecticut Reserve (3106). That reserve was soon filled with settlers from New England, who brought with them a sense of the importance of education.

The Composite Population.—What is now Ohio was thus the starting point of settlements in the Northwest Territory, and, note, it was largely settled by colonies. In addition to the New England colonies noted, was a very influential Virginia colony, settled on a reserve made by that state when her rights were relinquished. This was known as the Virginia Military District. It comprised an area of over six thousand sq. miles, shaped like a wedge, with its base on the Ohio River, between the Scioto and Miami rivers. Virginia reserved this section for the use of her Revolutionary Soldiers. A flourishing colony from New Jersey settled in the southwestern corner of Ohio. Cincinnati was one of their settlements.

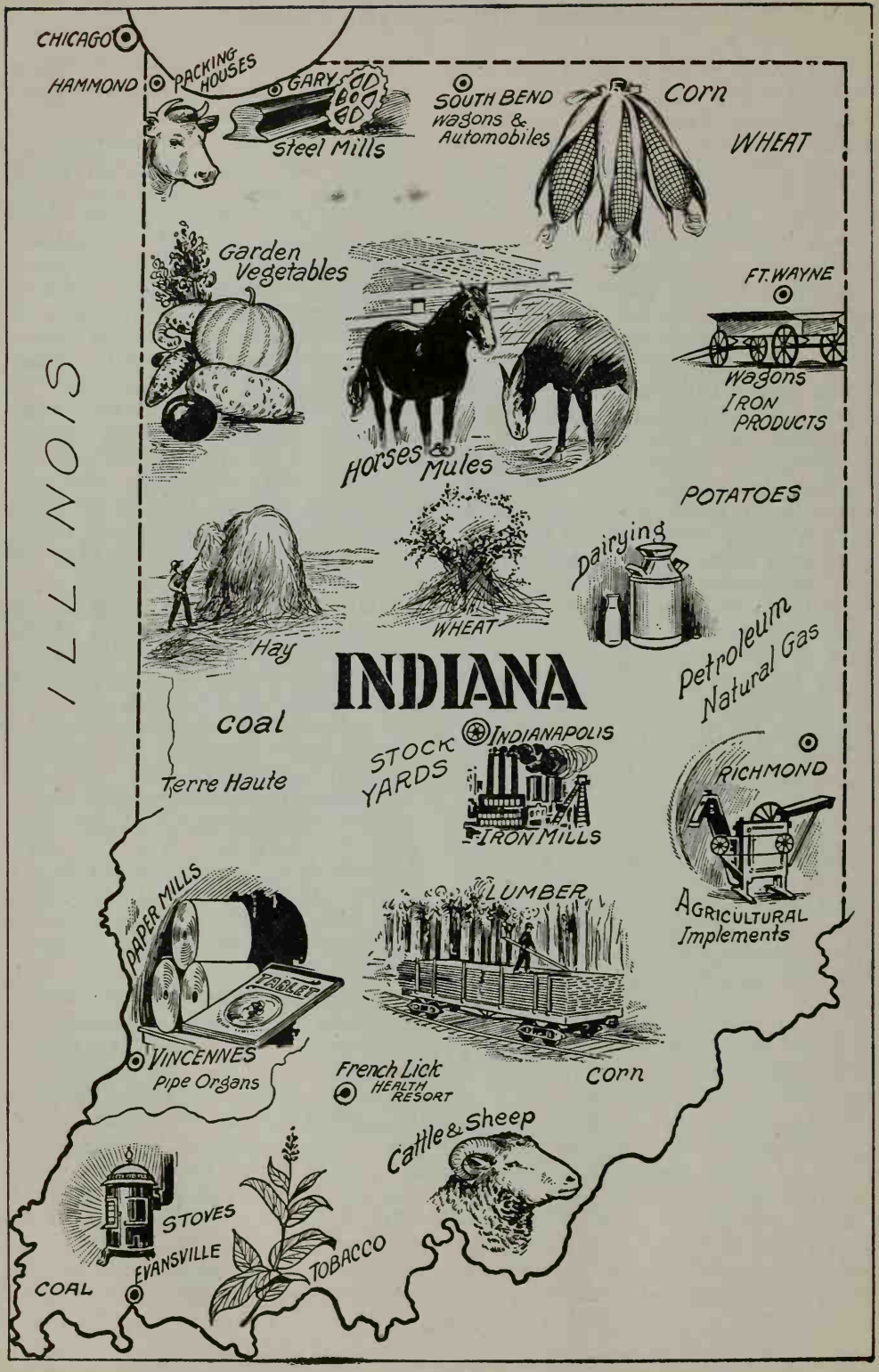
Formation of States.—We must recall the stipulation in the Ordinance of 1787 (2109) relative to the formation of states from the Northwest Territory. Quite naturally, Ohio was the first state thus formed. Its area is 41,040 sq. miles; its population in 1920 was 5,759,394, or an average density of 141.4 to the sq. mile. Notice the sudden increase in density of population over the states to the south of the Ohio River.

Surface Features.—Study the state graphic. From the direction of the river flow, it is evident that a ridge of higher land extends in a southwestern direction, a little north of the center of the state sloping towards the lake to the north and the river to the south. We would naturally expect that part of the state bordering on West Virginia to be broken and rugged, and there you note great deposits of bituminous coal.

Glaciated Area.—We are once more in a glaciated state. The great glacier (1174) flowed around the rugged, broken section in the southeastern part of the state. Entering the state from Pennsylvania (see graphic discussion of Pennsylvania) it curved to the southwest, came down the Scioto River valley to near the Ohio River, thence to the southwest, crossing the river near Cincinnati. The valley of the Ohio River was then a great glacial lake. Notice that the best agricultural parts of the state are just these sections that were plowed by glacial ice, hills eroded, and valleys filled with glacial drift (7, 9). It is interesting to refer to the graphic discussion of Kentucky and notice the evidence of an old lake shore.

Products.—Study the graphic representation of the industries of the state. Fruit (2) is best grown near the lake. The manufacturing industry (6, 11, 12) is prominent in the north and eastern part of the state; the location of coal (8) has been pointed out; and note petroleum production (14). See also Ohio minerals and mining 2083). Notice, also the vast importance of lake commerce (4). Tobacco (13) is a prominent crop west of Portsmouth (notice its connection with the Kentucky Field). Ohio ranks high as a manufacturing state, in keeping with the natural propensities of its early settlers.

Agriculture.—From its location and the nature of its early population, we would expect Ohio to take high rank as an agricultural state. The surface features are not rough and rugged except in the southeast. The soil is fertile especially in the old glacial sections of the state where the ice of the great glacier had distributed drift material. Rainfall is ample. The climate is pleasantly temperate, and all the usual fruits, grains, and grasses of the temperate zone flourish. Live stock interest is great, for


CHICAGO
HAMMOND
PACKING HOUSES
GARY
Steel Mills
SOUTH BEND
Wagons & Automobiles
Corn
WHEAT
Garden Vegetables
Horses & Mules
FT. WAYNE
Wagons
IRON PRODUCTS
POTATOES
Dairying
Hay
WHEAT
ILLINOIS
INDIANA
Petroleum
Natural Gas
coal
Terre Haute
STOCK YARDS
INDIANAPOLIS
IRON MILLS
RICHMOND
AGRICULTURAL Implements
PAPER MILLS
LUMBER
VINCENNES
Pipe Organs
French Lick
HEALTH RESORT
Corn
Cattle & Sheep
STOVES
EVANSVILLE
COAL
TOBACCO

many years Cincinnati was the center of the packing industry of the country. In no state are the great industries,—agriculture, manufacturing and mining,—more diversified.

Questions

We noticed the influence of the Cumberland Pass in furnishing a highway for incoming settlers to Kentucky and Tennessee. What two avenues of entrance to what is now Ohio do you know? (969, 1966).

Which of these lines of communication had the greater population to draw from?

When the Northwest Territory was first organized, approximately what part of the United States did it include?

How many states could be formed out of it? ("Ordinance of 1787"; 2109.)

Ohio was set up as a separate state in 1802; what population was it necessary to have at that time? (2109).

Which was the larger, the Connecticut Reserve or the Virginia Military Tract?

From what you know of the sources of Ohio's population, why would you expect manufacturing to be very prominent?

The immense potteries are situated in the section near the terminal moraine. Can you tell why? (What is necessary to produce good pottery?)

You note iron manufacturies in northeast part of the state. Where does the ore come from?

How do you account for the ease with which fruit is grown in the northern part of the state?

Suppose Lake Erie were to shrink until all that was left was a river from Detroit to Buffalo, what would be the effect on the industries of Ohio?

All of northwestern Ohio is underlaid with limestone. Does that explain in any way the location of petroleum wells?

How many presidents were natives of Ohio?

What great Indian battle was fought in Ohio? (See "Wayne," 3092; also 2085.)

Indiana

(State article, 1429)

Area and Population.—Indiana is smaller than Ohio, its area being 36,354 sq. miles. Its population in 1920 was 2,930,390, or an average density of about 81.3 to the sq. mile, which is only about two-thirds the average density of Ohio. There were no state reserves in Indiana, into which eastern states poured their surplus population.

Surface Features.—We are in the Mississippi Valley, but not in the distinctively prairie section. The terminal moraine of the great glacier extended in an irregular line from near the southeast corner of the state to the northwest corner, bending sharply to the north to avoid the central highlands of the state (1430), thence northwest to the state line. This explains the presence of small lakes in the northern part of the state and the fact that the more eroded portion of the state is to the south.

Agricultural Products.—Corn is represented in the northern part of the state; but it is raised generally over the state and is the principal crop. Attention is called to the fact that the glaciated portion of the state is that part where agriculture is most flourishing. The northwest corner of the state is a part of the lake plain and that fact together with nearness to markets, makes it a favorable section for truck farming.

Live Stock.—Abundance of corn means abundance of live stock, and packing-house products are next to corn in value. Notice the presence of sheep in the southern part of the state,—one of the sections where the surface is rough and rugged.

Mineral Products.—Coal is indicated in the southwestern part of the state. By comparing with Kentucky it will be seen that this coal section is a part of the northern continuation of the deposit in west Kentucky. Petroleum and gas are represented to the northeast of Indianapolis; evidently, here is a continuation into Indiana of the Ohio field. South of

MILK
WATCHES
STEEL & IRON
WHEAT
BARLEY
OATS
MANUFACTURES
FARM MACHINERY
BOOKS & MAGAZINES
RAILWAY CARS
GLASS
ETC.
ILLINOIS
The Prairie State
VIOLET
STATE FLOWER
CATTLE
HORSES
CORN
WHEAT
HOGS
COAL
COAL
OATS
COAL
PETROLEUM
STRAW-BERRIES
PEACHES
PEARS
APPLES
Cities Having Over 20,000 Inhabitants
Chicago 2,185,283
Peoria 66,950
E. St. Louis 58,547
Springfield 51,678
Rockford 45,401
Quincy 36,587
Joliet 34,670
Decatur 31,140

the glaciated area, where the surface has been greatly eroded, the limestone floor, deeply buried in the oil section, has been brought to the surface and there are immense quarries at Bedford (266), and cave formations in the southern part of the state. (See "Wyandotte Cave," 3170.)

Manufacturing Industry.—The manufacturing industries of the state are seen to surround, so to speak, the oil and gas sections of the state; but of course are not confined to that section. Glass making is a very prominent industry. Notice the great development of steel making at Gary (1132), in many respects a phenomenal town. Compare its location with the great iron mills in Ohio. (See Kokomo, Muncie, Connersville, and Richmond.)

Questions

There was a French settlement at an early date in Indiana; where was it? (3027).

Were there any military operations in this section in the Revolutionary War? (See "George Rogers Clark" 611.)

Was this conquest of any importance? (612).

What state must be given credit for obtaining the Northwest Territory? (611).

By what right did other states claim this same territory?

An important highway admitted settlers into the center of the state; what one was it? (1966).

How do you account for the great steel mills being located at Gary when neither iron nor coal is there? (Turn back and read graphic discussion of Pennsylvania.)

Think of every reason you can why manufacturing in Indiana was slower in development than in Ohio? (Consider source of population, access to markets, lake ports.)

There are large boulders scattered over the surface of Indiana, but none in the south and western part of the state. Why? (1174).

Illinois

(State article, 1417)

Location.—Illinois is the third state formed from the Northwest Territory, comprising all that part of the territory between Indiana and the Mississippi River. Its northern boundary was located so as to give the state a lake front. The Ohio River was the entrance way for the first settlers, who came from Kentucky and Virginia, and thus the southern part of the state was settled first.

Surface Features.—Illinois is a prairie state, in the very heart of the Mississippi Valley (2959). We would not expect the surface to be rugged; in fact, the state is one of the most level in the Union. There is, however, a broken section in the northwest; and the Ozark Mountains in Missouri send a low-lying spur across Illinois in the south. The great glacier entered the state from Indiana about half way from the Ohio River to the lake and spread out like a fan towards Mississippi River, stopped by the rugged portions noted. In all the area covered by the glacier the surface was levelled and overspread with drift (861); and the rivers of the state have eroded their channels since the Glacial Age (1174).

Area and Population.—Illinois is the largest one of the three lower states carved out of the Northwest Territory, having an area of 56,665 sq. miles. Its population in 1920 (Census) was 6,485,280, an average density of over 115.7 to the sq. mile. Nearly half of the population lives in Chicago.

Mineral Resources.—(Study formation of coal 631). Coal is indicated at several places on the graphic. We are justified in assuming that the center of the state was once the bed of a shallow sea and that coal was formed all around the edges, consequently the coal production is very great. The limestone floor of the old sea served here, as elsewhere, to store up oil and gas, but not in such quantity as in Ohio and Indiana. (Study

the graphic, consult Petroleum, 2229, compare with similar products in other states. Notice connection with, but removal from, the coal deposits.) Where the rivers have eroded (969) deep channels and exposed the limestone floor, limestone quarries are located, as at Joliet. Some iron, lead, and zinc is noticed in the northwest, in connection with the elevated, broken upland section.

Agricultural Products.—From its location, its surface features, its geological history, we would expect Illinois to be a rich agriculture state. It leads the union in the production of corn. Notice the cereal crops. Naturally, the live stock industry is very great (notice cattle, horses and hogs). The non-glaciated part of the state to the south is the fruit section of the state (notice its location). Not shown on the graphic, but extending south of Chicago and Kankakee, is an old lake plain, which is the center of the garden and truck industry, connecting with a similar section in Indiana.

Manufactures.—All the factors of successful manufacturing (raw material, abundant fuel, access to market) are present, and the state ranks third among the manufacturing states. In packing-house products, Illinois leads the world.

Questions

Among the first settlers from Kentucky was a young man who became very famous. Who was he? (1642).

What factors united to make Chicago such a large city?

Study the location of steel mills at Chicago, Gary, and Northeast Ohio—what determined their location?

The glaciated portion of a state seems the most fertile (compare Indiana and Ohio). Why? (1174).

Was Illinois ever a part of France?

The Illinois River has excavated a very wide channel, what enabled it to do so? ("Illinois Scenery," 1418.)

How does the fact you have just learned help to explain the garden belt at Kankakee?

Michigan

(State article, 1835)

Location.—A study of the graphic of Michigan discloses many unique features. The two peninsulas, separated only by the narrow strait of Mackinac, give the state a shape faintly resembling a carpenter's square, the two arms of which boldly project into the submerged area of the Great Lakes, dividing it into three separate bodies of water, one of which, embraced in the angle of the square, is wholly in the territory of the United States.

The state as a whole is in the same latitude as southern New England; and forms, as it were, the northern cap of the old Northwest Territory. No other state has such an extensive shore line, 1600 miles in all. A glance at the graphic shows that we might consider Lake Michigan as an arm of the lakes thrust into territory rightly belonging to Michigan. It is necessary to dwell on these facts since they furnish the key to much that is peculiar in the climate of Michigan, and explain the great transportation facilities of the state,—no part of Michigan is more than eighty-five miles from a lake, and there are a number of good harbors on her extended shore line.

Area and Population.—The area of Michigan is 57,980 sq. miles. Its population in 1920 was 3,668,412, or about 63.8 to the sq. mile. It will be noticed that it is the largest state formed from the Northwest Territory, but its present population per sq. mile is the lowest. This result is owing to the sparsely settled Northern Peninsula which reminds us of conditions in northern New England. The area of the Northern Peninsula is nearly one-third the total area of the state; it constitutes a long, comparatively narrow bridge, connecting the highlands of Wisconsin and similar sections in Ontario, through which, however, the waters of the upper lake have cut a narrow passageway at the Sault Ste. Marie.

The Northern Peninsula.—Remark-

ably interesting facts can be drawn from a study of the Northern Peninsula. Not only is it due west from northern New England, but its surface features remind us of that section,—broken, rugged, forest-clad, rich in quarry products. Another point must be noticed,—the Appalachian Mountains in eastern United States form one arm of a V-shaped disturbance starting in eastern Canada; the other arm, not so prominent, stretched west and is prolonged in the Upper Peninsula of Michigan, culminating in the mineral-bearing ranges around the head of Lake Superior.

In tracing the eastern arm of this disturbance down the Atlantic coast we found iron here and there, copper in large quantities in Tennessee, and vast iron deposits at the extremity of the disturbance in Alabama. Tracing the western arm of the same disturbance we find iron here and there, culminating in the immense deposits at the extremity of the disturbance at the head of Lake Superior, while the copper deposits of Tennessee are more than duplicated in the vast copper deposits of the Upper Peninsula of Michigan. Shall we conclude that iron and copper, both being heavy metals, are found only in connection with igneous rocks forced up from deep in the interior of the earth? Compare the location of iron and copper in the divergent arms of the great disturbance centering in Canada. (See Geology in Study Guides for a suggestion as to the possible origin of the iron deposits.)

Mineral Products.—The two wide and far flung arms of this disturbance seem to have inclosed a section of many thousand square miles (the eastern Mississippi Valley) covered by shallow seas; and in that inclosed area we find coal deposits at various places. We need not be surprised, then, to notice coal indicated in the Lower Peninsula. This should be compared for location with similar deposits in other states. In New York, evidently near the shores of this old sea, are vast salt deposits (2022); so, also, in Michigan, in a similar location, we find other great salt deposits. (Notice on the graphic. Study the formation of salt, 2533.) Gas is also found in the southern part of the state. (Notice its location, removed from the coal deposits, compare with gas in other states.)

Lumber.—Large parts of Michigan are heavily forested, especially the Northern Peninsula. (Compare forest areas of New England.) The abundance of timber—both white pine and hardwood—must be considered when studying the industries of the state. It is interesting to compare the great white pine belt of Minnesota, Wisconsin, and Michigan with the yellow pine belt of the South.

Glacial Action.—The entire surface of the state was subjected to glacial action, and the results noted in other states followed,—surface features subdued; ancient valleys filled; soil ground, pulverized, and mixed; a large number of lakes formed; boulders and moraine debris scattered over the surface generally; and the soil left eminently well adapted to agriculture. (Compare with glacial areas elsewhere. Give explanation of this fact.)

Agricultural Products.—Agriculture is flourishing; this fact is reflected in the state graphic. Cereal crops generally do well, while Michigan leads in the production of many garden vegetables. The influence of lakes on climate is shown in the abundance of fruit along the west shore of the Lower Peninsula. This is the fruit belt, but small fruits grow wild all over the state. Notice celery in the southern part,—Kalamazoo, Michigan, is one of the greatest celery markets in the world. Special attention is called to the sugar beet industry. Michigan is in the sugar beet belt of the United States; from central New York west (274). Shall we say the location of this belt is determined by climate or by soil? It is at any rate of interest to note that in all sections where the sugar beet flourishes, the soil was heavily glaciated.

Manufactures.—Michigan is one of

our great manufacturing states. It is the center of the automobile industry of the world. In value, automobiles constitute more than half the total manufacture of the state. Owing to the stress of modern needs, ship building, already important, will doubtless greatly increase in volume. Notice the influence of lake ports in developing manufactures; Detroit is the center of the vast automobile industry. Notice also the manufacture of furniture; Grand Rapids is one of the great furniture centers of the country.

Water Power.—We noted that the vast energy of Niagara Falls was utilized in western New York. Almost equally great power can be developed at the Sault Ste. Marie Rapids. There has been a wonderful development already, but only a fraction of possible water power has been utilized. It is a question of distribution; sufficient power could be developed at the Soo to turn every wheel in Michigan. (See Sault Ste. Marie 2560.)

Items of Interest.—As noted elsewhere (1835), Michigan is rich in early history. For more than a century it was a possession of France, and noted explorers were familiar with the waters of the upper lakes. (See "Marquette," 1778; La Salle, 1594.) Detroit was the scene of actions of glory and of shame in our early history (see Clarke, George Rogers, 611; Hull, 1389), for the possessions of its territory noted Indian chiefs contended (see Pontiac, 2311; Tecumseh, 2838). Michigan in the vicinity of Mackinac, rich in historic lore and possessing great scenic attraction, vies with northern New England as one of our summer-resort states (1837).

Questions

What are the Great Lakes? (1224).

Do you know of any chain of lakes approaching them in size? (29).

Both Wisconsin and Michigan border on Lake Michigan, but why do they differ in climate? (Consult "Wind," 3142.)

Mention some manufacturing centers in other states depending on the iron deposits around Lake Superior.

Describe the process of transporting the ore to the other lake ports (1466).

How do they pass the rapids of Sault Ste. Marie? (2560).

How does this canal compare with the Erie Canal? (969). With the Panama Canal? (2152).

What does the word "Sault" in Sault Ste. Marie mean?

Do you know of any other city in Michigan whose name would indicate extensive water power?

Have you anything about your home that perhaps came from there?

In your country there are probably some splendid roads. What industry in Michigan exerts an influence in building them? (2452).

Florida and Michigan are both peninsula states. Compare them,—area, coast line, industries, resort places, fruits, etc. Compare their general shape. Compare the fisheries. Any resemblance in early history?

Mention an interesting fact about the Detroit River (817).

Did you ever see the state flower of Michigan in bloom? (Look at it on the graphic.)

What is a wolverine? (3155).

How do they procure salt in Michigan? (2534).

How did the Northern Peninsula of Michigan come to be included in the territory of the state? (1839).

Did you have anything for breakfast that perhaps came from Michigan? (1837).

Wisconsin and Minnesota

Nearly half of the present state of Minnesota was once included in the Northwest Territory with what is now Wisconsin and so these two states, having much early history in common, are represented on one graphic.

Wisconsin (3148).—Wisconsin is the northwest corner state of the old North-

west Territory (except for a part of Minnesota, see map in colored section), and was the last state to be carved from it. According to the terms of the Ordinance of 1787 (2109), five states could be organized in the territory. It will be noticed these states are not greatly different in area, especially the last three, and that all were so organized to have some territory on the Great Lakes. Notice, also, the orderly unfoldment of the territory, beginning with Ohio in the southeast, ending with Wisconsin in the northwest. In fifty years' time from the organization of the territory, five states with an area of 248,105 sq. miles and a population of four and a half million had been organized in what had been an uninhabited tract, except for Indians, hunters, and a few venturesome pioneers.

Area and Population.—The area of Wisconsin is 56,066 sq. miles, its population in 1920 was 2,632,067; an average of nearly 47.6 to the sq. mile. Compare these figures with those for the other four states of the group.

Surface Features.—It will be noticed that Wisconsin is in the same latitude as New England; and the surface features are much the same as southern New England. In the north the surface is a continuation of the rugged features of the Northern Peninsula of Michigan. The entire state was subjected to glacial action, except the southwest corner of the state, known as the driftless area. The glacier performed the same work as in New England,—planing down the prominences; filling up the valleys; polishing and grooving the strata; and leaving its rubbish of sand, gravel, clay, and boulders over the face of the country. Attention is called at once to the immense number of lakes in Wisconsin, due to glacial action (compare with lakes in New England); and as in southern New England the water power, developed and undeveloped, is very important,—it is estimated that half a million horse power can be rendered available.

Natural Products.—The natural products are represented on the graphic. Notice quarry products in the northern part of the states, which is the rugged surface. That is succeeded by timber; but timber is, of course, found over the state generally. Notice, it is white pine, not yellow pine. As in other states, the central glaciated section of the state is the live stock, dairy, and grain section. Notice the presence of tobacco in the southwest section; compare with Connecticut; also note sugar beets. Dairying is very important; compare with dairying in other states. Notice the character of the surface features where dairying is prominent.

Manufacturing.—All the elements of successful manufacturing are present,—raw material (quarry products, lumber); water power; and access to markets (lake ports, Ashland, Green Bay and Milwaukee), consequently manufacturing is great and growing.

Questions

Florida also has an immense number of lakes, does the same cause explain their formation? (See Florida graphic and discussion.)

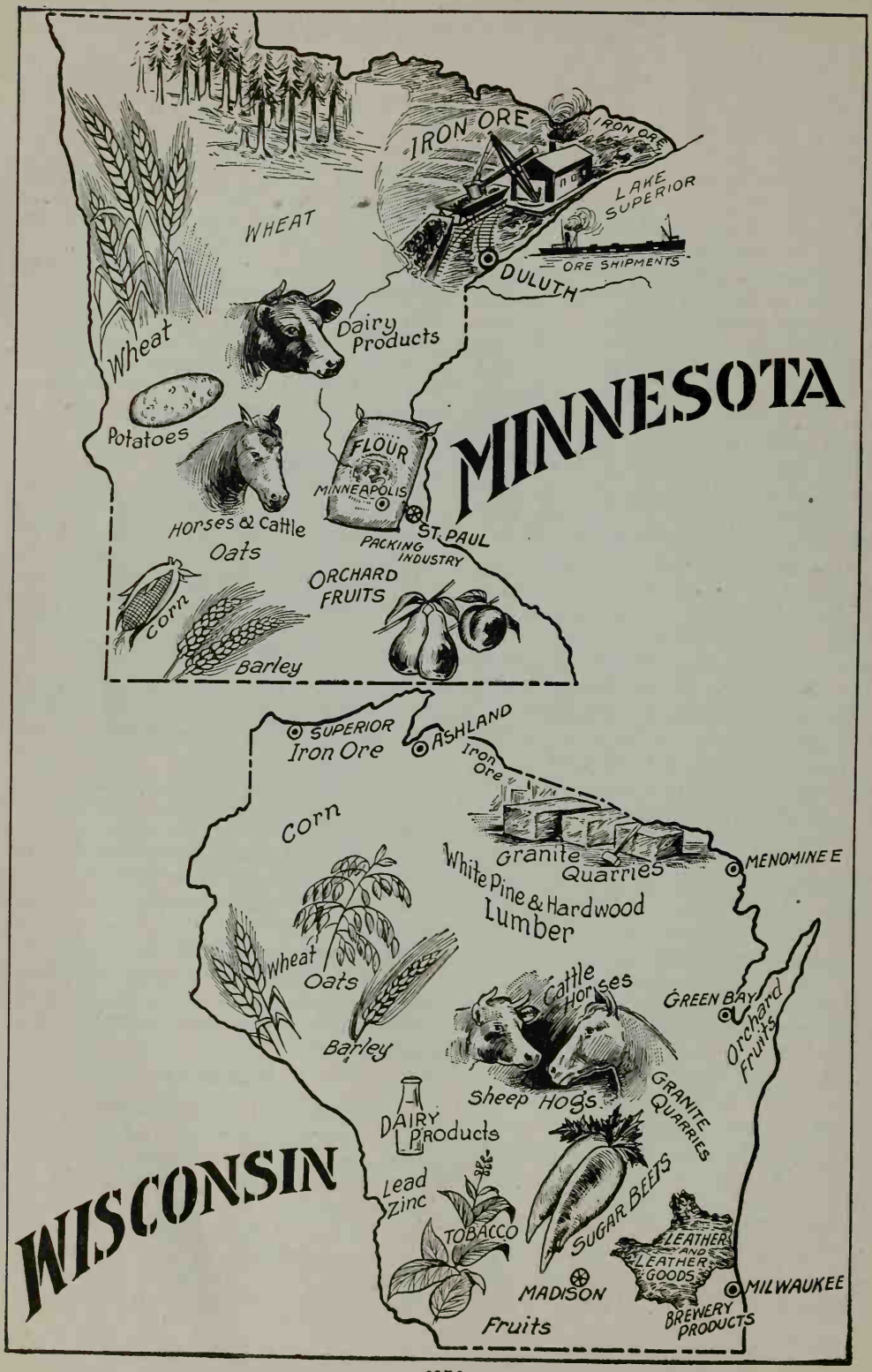
The pine in Wisconsin is white pine; in Georgia, yellow pine. What is the difference?

Suppose the glacier had never worked over the surface of Wisconsin, would it have been as fertile a state as now? Your reasons.

We have now considered the graphics of all the states formed from the Northwest Territory; compare them, point by point,—area, population, agriculture and manufacture.

Minnesota

Location.—The northeastern half of Minnesota was once a part of the Northwest Territory; it was given to Minnesota to provide that state with a port and a front on Lake Superior. The value of lake ports is so self-evident that Congress accommodated as many states as possible. Three of the northeastern counties of Minnesota are bounded on the south by


IRON ORE
IRON ORE
LAKE SUPERIOR
ORE SHIPMENTS
DULUTH
WHEAT
Wheat
Dairy Products
Potatoes
MINNESOTA
FLOUR
MINNEAPOLIS
ST. PAUL
PACKING INDUSTRY
Horses & Cattle
Oats
ORCHARD FRUITS
Corn
Barley
SUPERIOR
Iron Ore
ASHLAND
Iron Ore
Corn
Granite Quarries
MENOMINEE
White Pine & Hardwood Lumber
Wheat
Oats
Barley
Cattle
Horses
GREEN BAY
Orchard Fruits
Sheep
Hogs
GRANITE QUARRIES
DAIRY Products
Lead
Zinc
TOBACCO
SUGAR BEETS
LEATHER AND LEATHER GOODS
MADISON
MILWAUKEE
BREWERY PRODUCTS
Fruits
WISCONSIN

Lake Superior; the only part of the United States so situated. Minnesota is almost due west of northern New England.

Area and Population.—Minnesota is one of the large states of the Union, its area being 84,622 sq. miles. Its population in 1920 was 2,387,125, an average of about 29.5 to the sq. mile. The states west of the Mississippi River are considerably larger than those east of the river; they belong to different periods of our national history.

Surface Features.—The northeastern part of the state is broken and rugged; it is a prolongation of the features of north Wisconsin and Michigan. The ice of the Glacial Age entered the state at the north and terminated far to the south and west, leaving the usual results; but did not cover the driftless area in the southeast. In the northwest corner of the state can be read one of the most interesting chapters in the geological history of the United States. Briefly, Lake Winnipeg, in Manitoba, is the shrivelled remnant of a lake (called by geologists Lake Agassiz, 1861), larger in area than the combined area of our present Great Lakes; it extended far to the south and west and filled the present valley of the Red River. This lake sent its waters down the Mississippi River. As that river received also the waters of the present Great Lakes down the valley of the Illinois River (see graphic discussion of Illinois), it must have been for long ages a veritable Amazon,—many miles wide, discharging a volume of water vastly greater than at present.

Natural Products.—Iron exists in exhaustless quantities in the northeast corner of the state; we must study it in connection with the iron deposits of Alabama. Timber is represented in the northern part of the state; Minnesota has the largest body of white pine east of the Rocky Mountains. Wheat is growing in the northwest (of course, over the state generally); and the Red River Valley, the old lake bed, is the most wonderful wheat growing section in the United States. Notice other cereals. Cranberries are raised in immense quantities in the lake-dotted, swampy section of the state north of the center. Notice the presence of fruit in the driftless section in the southeast; compare with fruit section in Wisconsin and Illinois.

Manufactures.—Immense steel mills have been established at Duluth. Notice, here are reversed the condition of manufacture in western Pennsylvania,—coal is brought to the iron ore. The wheat crop makes possible the great milling industry of the state, which is by far the most important industry. Advantage is taken of the water power of the St. Anthony Falls at Minneapolis for manufacturing purposes, but only a fraction of possible water power has been developed. It is interesting to note that recent improvements under supervision of the general government have made Minneapolis the head of navigation of the Mississippi River.

Questions

How did a mistake in the Treaty of Paris help the iron industry in the United States? (1861, and study the graphic).

Lake Agassiz was larger than all our Great Lakes; it has disappeared. Do you think our Great Lakes will ever disappear?

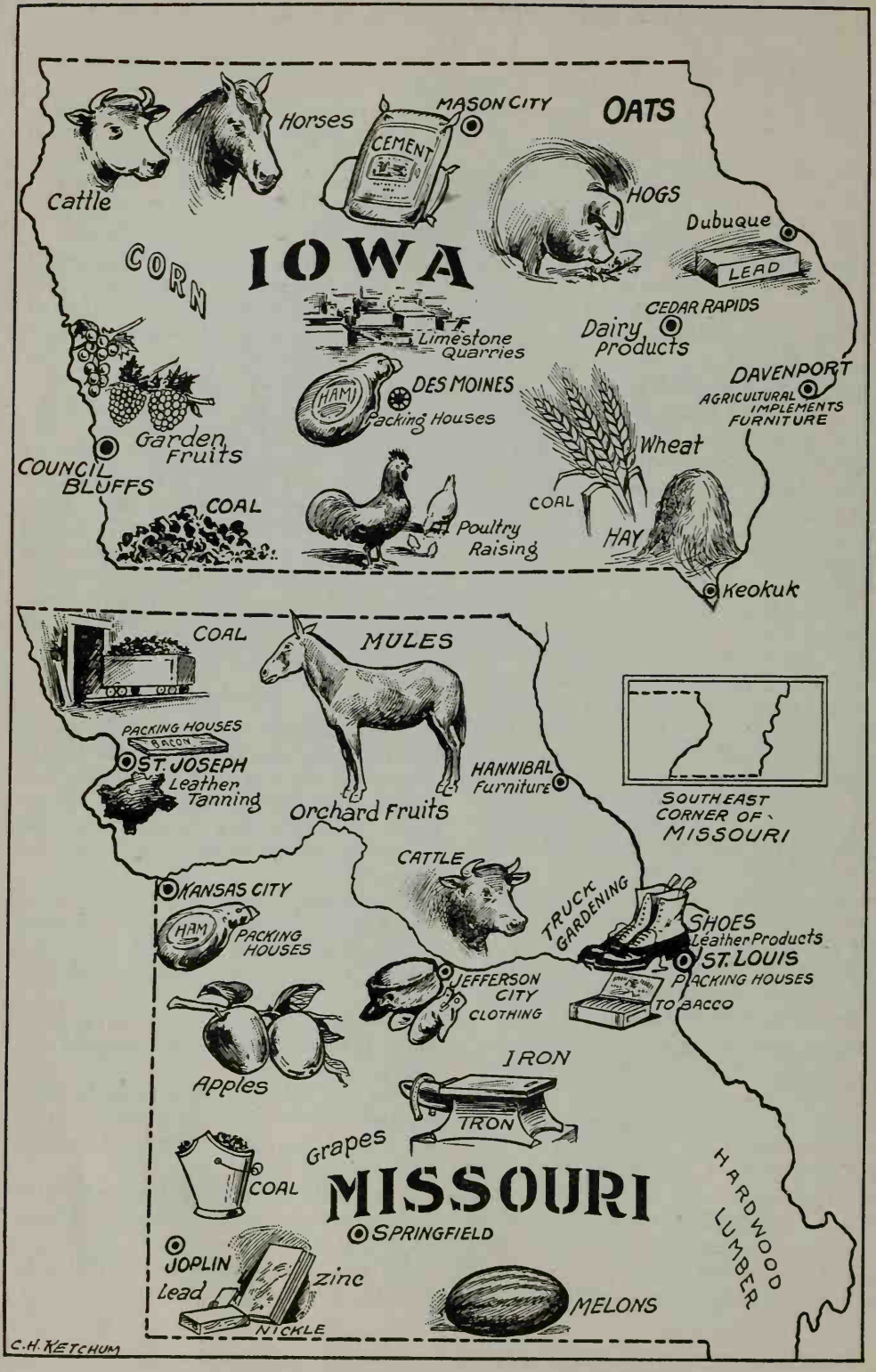
The immense number of small lakes found in all glaciated states were formed by the great glacier. Do you think our present Great Lakes were formed that way?

Turn to the illustration fronting page 1466. Do they mine the Alabama ore that way?

Coal and iron ore have to be brought together. They generally prefer to carry the iron to the coal. Why? (Smelting, 1466.)

They make a great deal of turpentine from southern pines. Why not manufacture it in Minnesota?

Do you think climate has anything to do with this result?


IOWA
Horses
Cattle
MASON CITY
CEMENT
OATS
HOGS
Dubuque
LEAD
CORN
Limestone Quarries
CEDAR RAPIDS
Dairy products
DAVENPORT
AGRICULTURAL IMPLEMENTS FURNITURE
HAM
DES MOINES
Packing Houses
Garden Fruits
COUNCIL BLUFFS
Wheat
COAL
HAY
Poultry Raising
Keokuk
COAL
MULES
PACKING HOUSES
BACON
ST. JOSEPH
Leather Tanning
Orchard Fruits
HANNIBAL
Furniture
SOUTH EAST CORNER OF MISSOURI
CATTLE
KANSAS CITY
HAM
PACKING HOUSES
TRUCK GARDENING
SHOES
Leather Products
ST. LOUIS
PACKING HOUSES
TOBACCO
JEFFERSON CITY
CLOTHING
IRON
Apples
IRON
Grapes
COAL
MISSOURI
SPRINGFIELD
JOPLIN
Lead
Zinc
NICKLE
MELONS
HARDWOOD LUMBER
C.H. KETCHUM

Iowa and Missouri

These two states are centrally located in the Mississippi Valley, immediately to the west of the river, in the same latitude as Pennsylvania and the Chesapeake Bay group of states. All of Iowa and much of Missouri is prairie, and the two states are represented on one graphic.

Iowa (1457).—Iowa is the northernmost of the two states named. It is almost geometrical in outline, being, roughly speaking, a rectangle, as is noticed on the graphic. Its area is 56,147 sq. miles. Its population in 1920 was 2,404,021, an average of about 43.2 to the sq. mile. It will be noticed that while Iowa is not greatly different from Illinois in area the latter state has more than twice the population to the square mile. It is well to determine all the factors leading to such a result. (See questions following.) Notice how the tide of population flowed into unorganized sections of our country. In settling the Northwest Territory it followed a definite course. It was the same in the Louisiana Purchase; the tier of states west of the Mississippi was being organized in regular order. Iowa is the fourth state from the Gulf and was the fourth state formed out of that purchase.

Surface Features.—We could almost determine the surface features of Iowa from a study of the graphic. Notice lead at Dubuque; evidently that is a more broken, bluffy part of the state; a continuation of a similar section in Illinois and Wisconsin. (See graphic discussion of Illinois and Wisconsin.) Cement at Mason City indicates that the surface has been deeply eroded and the underlying rocks exposed. In explanation, we learn that the ice of the Glacial Period covered the entire state; consequently erosion must have attended the passage of the glacier over the elevated ridge in the north of the state.

The presence of limestone quarries indicates a river that has sunk its channel and exposed the limestone floor of the state. It is in the valley of the Des Moines River, which has carved its bluffy channel from where "Cement" is shown, first south, then southeast to Keokuk. To the west of the divide is the Missouri River slope. Notice the garden fruits. While such fruits are produced abundantly over the state, they flourish well in that section, as the soil is largely loess deposits (1683) of the Missouri River. To the south of the divide the surface is more hilly (1458); that is a glaciated, rolling section of the state, and such features continue into north Missouri.

Agricultural Products.—Iowa is preeminently an agricultural state. The great crop is corn, the value of which is about equal to that of all other crops raised in the state. This fact means that live stock raising,—cattle, horses and swine,—is very prominent. This, in turn, makes possible the meat packing industry, which is by far the most important factory product of the state.

Quarry Products.—Coal is indicated in the southwest, but it is by no means confined to that section; about one-third of the state is underlaid with coal. This coal belt is the northern prolongation of the Missouri field. Attention has been called to the lead, cement and limestone deposits; there are also great gypsum deposits at Fort Dodge (1250). Notice both gypsum and limestone occur in close proximity, in the bluffs of a river that has sunk its bed to the limestone floor of the state.

Water Power Development.—At Keokuk, at the foot of the Des Moines Rapids, the Mississippi has been dammed and about 100,000 horse power developed (1548); at Cedar Rapids also an extensive development of power is noticed (530). These facts must be kept in mind in considering the future of Iowa as a manufacturing state.

Missouri

Location, immediately south of Iowa. Missouri was the second state to be organized out of the Louisiana Purchase. Several factors contributed to a rapid in-

crease in population, so that Missouri was entitled to statehood before either Iowa on the north or Arkansas on the south. A study should be made of the factors conducing to such a result. (See questions following.)

Area and population.—The area of Missouri is 69,420 sq. miles. Its population in 1920 was 3,404,055, an average of nearly 49.5 to the sq. mile. It is the most densely settled one of the states bordering the Mississippi River on the west.

Surface Features.—The surface features are fully set forth elsewhere (1876). The Missouri River that winds across the state is the southern boundary of the glacial ice; and, consequently, the soil of the northern part of the state is the best for agricultural purposes in the state. The graphic indicates the presence of elevated sections in the northwest, the south and southwestern parts of the state. Notice the agricultural belt extending diagonally across the state between these elevated sections. The lowest part of the state is in the southeast.

Agricultural products.—Corn, wheat, and oats are the crops of greatest value and are raised all over the agricultural belt. Corn is the crop of greatest importance. Missouri is in the heart of the corn belt. (See map, P. 706). That means that live stock raising is a flourishing industry, which, in turn, helps the packing industry, which furnishes the factory product of greatest value in the state. Notice fruit represented in the south and west; the largest apple orchard in the world is situated in Missouri. Notice melons in the southern part of the state; but that is not the only fruit crop,—about 1,000 car loads of peaches are shipped from that section yearly, while entire train loads of strawberries are shipped from southwestern Missouri.

Mineral Products.—The northwestern half of the state is underlaid with coal; this coal belt extends into Kansas. Missouri leads all other states in the manufacture of lead, most abundantly produced in the southeastern part of the state, about half way between St. Louis and the Arkansas line. Zinc is represented around Joplin, which is said to be the greatest zinc producing center in the United States. (Compare with Tennessee graphic.) Notice the presence of iron (1876). From the character of the mineral output we expect the mountains in that part of the state to be granite.

Water Power.—Bennett Springs, in Oregon County, is one of the largest springs in the world, certainly one of the most wonderful. It flows at the rate of about 500,000,000 gallons a day. (Compare with Florida Springs.) It is truly an underground river forcing its way to the surface. There is simply unlimited water power awaiting development in the Ozark region. Enormous developments are now being made in Tansey County, from which towns in southwest Missouri can be furnished power. The Meramec River, below St. Louis, can easily provide power for every manufacturing plant in that city.

Questions

What is a prairie?

What reasons can you give for the comparatively slow development of population in Iowa?

Did Indian troubles influence that result? (See "Black Hawk" 314.)

There were good lines of travel for settlers in Illinois (study them), how about Iowa?

There are a number of lakes in the northern part of Iowa. What was their origin? Your reasons?

We talk about the limestone floor of the state. How was that limestone formed? ("Rock" 3458.)

What is cement? (533).

What is gypsum? (1250).

What common element in limestone and gypsum? (446).

Notice lead at Dubuque, compare with lead in Illinois and Wisconsin. What kind of rock do you find in the bluffs there? (See "Galena," 1120, and "Rock" 2458.)

North and South Dakota

The line separating North and South Dakota is a political, not a natural one. These two states were long united and constituted the eastern end of a very large territory, which extended west to the Rocky Mountains.

The Graphic.—It is well to study the graphic as a whole. Notice the general agreement of the two states in surface features and industries. Observe, that the Missouri River, speaking generally, divides the states into two well marked sections.

South Dakota (2702).—The area of South Dakota is 77,615 sq. miles; its population in 1920 was 636,547, an average density of some over eight per sq. mile. We must recall that the state is not yet fifty years old, and that we are in a section of country where the Indians made their last hostile stand. (See "Sioux," 3552.)

Surface Features.—The Missouri River through North and South Dakota forms, roughly speaking, the western boundary of the ancient glacial ice. That fact is plainly indicated on the graphic. Notice the rich agricultural section of the state to the east of the river; the broken, rugged section in the southwest; the grazing plains to the west and northwest. In general, the western part of the state was subjected to the erosive action (969) of running water for long ages, while in the eastern part the surface was protected by its icy covering.

The Bad Lands (2702).—The Bad Lands of the western part of the state present one of the most striking examples of erosion in the world. The ancient surface has been entirely denuded, long buried strata have been exposed, deep valleys have been chiseled out; and there can be read one of the most interesting chapters in geological history.

Scarcely a season passes that scientific expeditions from the East do not visit that section for geological study. (See Fossils, 1073; Paleontology, 2146.)

The Black Hills.—The Black Hills in the southwestern corner is the mineral section of the state (2703); it is a broken succession of jagged peaks and fantastically shaped pinnacles. The great mineral deposits show us at once, that we are in the presence of the oldest upheaved portion of the state. This disturbed area controls the surface feature of the western part of the state; it is itself a far flung outlier of the Rocky Mountain upheaval.

Agricultural Products.—The eastern half of the state, the glaciated half, is the part of the state especially devoted to agriculture. In 1916 corn was by far the most important cereal crop, followed by wheat and oats. As in other corn growing states, the live stock industry is very prominent,—it is next in importance to the production of corn. All the river valleys in this part of the state run north and south; glacial drift covers the entire section; and the rivers have eroded rather wide and fertile valleys. These facts explain the fertility of the eastern half of the state. The value of the minerals extracted from the rich deposits of the Black Hills of the west is less than one-thirtieth the value of the agricultural products of the east.

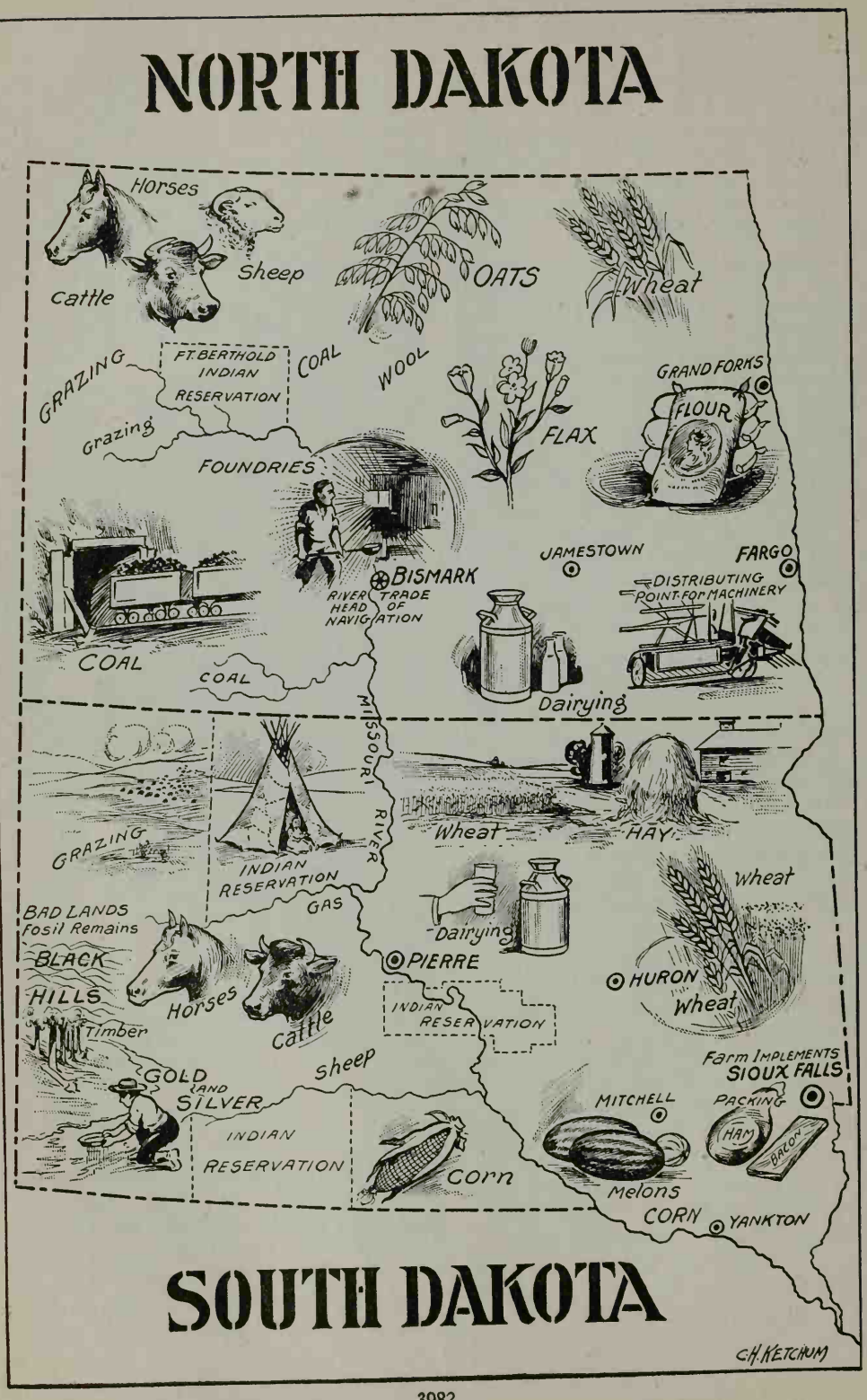
Water Power.—At Sioux Falls we are approaching a disturbed section of the state; the Dakota part of the rugged section noticed in Iowa and Minnesota. Surface rocks appear forming a succession of rapids. This fact explains the development of manufacturing industries at Sioux Falls. Vast water power can be developed in the western part of the state also, it is a problem of distribution.

North Dakota

(2057)

Area and Population.—North Dakota is slightly smaller than South Dakota, its area being 70,837 sq. miles. Its population in 1920 was 646,872, an average of some over nine to the sq. mile.

Surface Features.—As in South Dakota, the Missouri River, roughly speak-


NORTH DAKOTA
Horses
Sheep
Cattle
OATS
Wheat
GRAZING
FT. BERTHOLD INDIAN RESERVATION
COAL
WOOL
Grazing
FLAX
GRAND FORKS
FLOUR
FOUNDRIES
BISMARK
RIVER HEAD NAVIGATION
TRADE OF
JAMESTOWN
FARGO
DISTRIBUTING POINT for MACHINERY
COAL
COAL
Dairying
MISSOURI RIVER
GRAZING
INDIAN RESERVATION
Wheat
HAY
Wheat
BAD LANDS
Fosil Remains
BLACK
HILLS
Timber
GAS
Dairying
PIERRE
HURON
Wheat
Horses
Cattle
INDIAN RESERVATION
Farm Implements
SIOUX FALLS
PACKING
GOLD AND SILVER
sheep
MITCHELL
HAM
BACON
INDIAN RESERVATION
Corn
Melons
CORN
YANKTON
SOUTH DAKOTA
C.H. KETCHUM

ing, marks the southwestern limit of the glacial ice. The eastern half of the state is the distinctively agricultural section. Lake Agassiz (see graphic discussion of Minnesota) occupied what is now the northeast corner of the state. That ancient lake bed is now one of the most fertile valleys in the world, and leads in the production of spring wheat, which is by far the most valuable crop of the state, followed by oats. (Notice on the graphic.) Notice the presence of flax. North Dakota raises more flax than any other state (1040). It has been shown in recent years that corn can be made a profitable crop, the same is true of alfalfa; as a consequence, the live stock and dairy interests are rapidly increasing (notice grazing in the northwest corner of the state), and there are few counties in the state that do not possess a number of creameries.

Minerals.—Lignite coal is indicated in the western half of the state (632); the supply is virtually unlimited. Lignite can be improved for fuel purposes by compressing it into briquettes, and at several places such briquettes are being manufactured. At various places in the southwestern part of the state the lignite beds have become ignited, and extensive subterranean fires are smouldering. Such sections are a repetition of the Bad Lands of South Dakota. One theory of the formation of the Bad Lands proper is that they once overlaid a vast coal bed that has slowly burned itself out and we are presented with the results of a long drawn out conflict between the forces of fire and water, that have baked, molded, carved, and eroded the ancient surface.

Manufactures.—There are three important manufacturing centers in the state shown on the graphic,—Bismarck, Fargo and Grand Forks. Quite an extensive river commerce with Winnepeg, Canada, is maintained from Grand Forks. Notice the flour industry at Grand Forks. Notice the coal mine north of Bismarck, the largest in the state. That mine possibly explains the prosperity of Bismarck, but another reason for such a result is noticed on the graphic. Study the location of Fargo. Extensive clay deposits are found (formed by glacial action) from which bricks and pottery can be manufactured, and pressed brick making is becoming important in North Dakota.

Water Power.—As in other glaciated sections, the north and eastern part of the state is dotted with lakes. The principal one is Devils Lake, which covers nearly 400 sq. miles. It is a salt water lake, having no visible outlet. This lake is a summer resort for that part of the state. The valley of the James River, about half way between the Missouri Valley and the Minnesota line, is noted for its numerous artesian wells (159). Immense water power is waiting development in the upper Missouri River and its tributaries from the west.

Questions

How did the present territory of the Dakotas become a part of the United States?

On the graphic, several Indian reservations are noted. Explain about them.

What expedition first explored the Missouri Valley in these states? (1624). Did it make a long stay in the Dakotas?

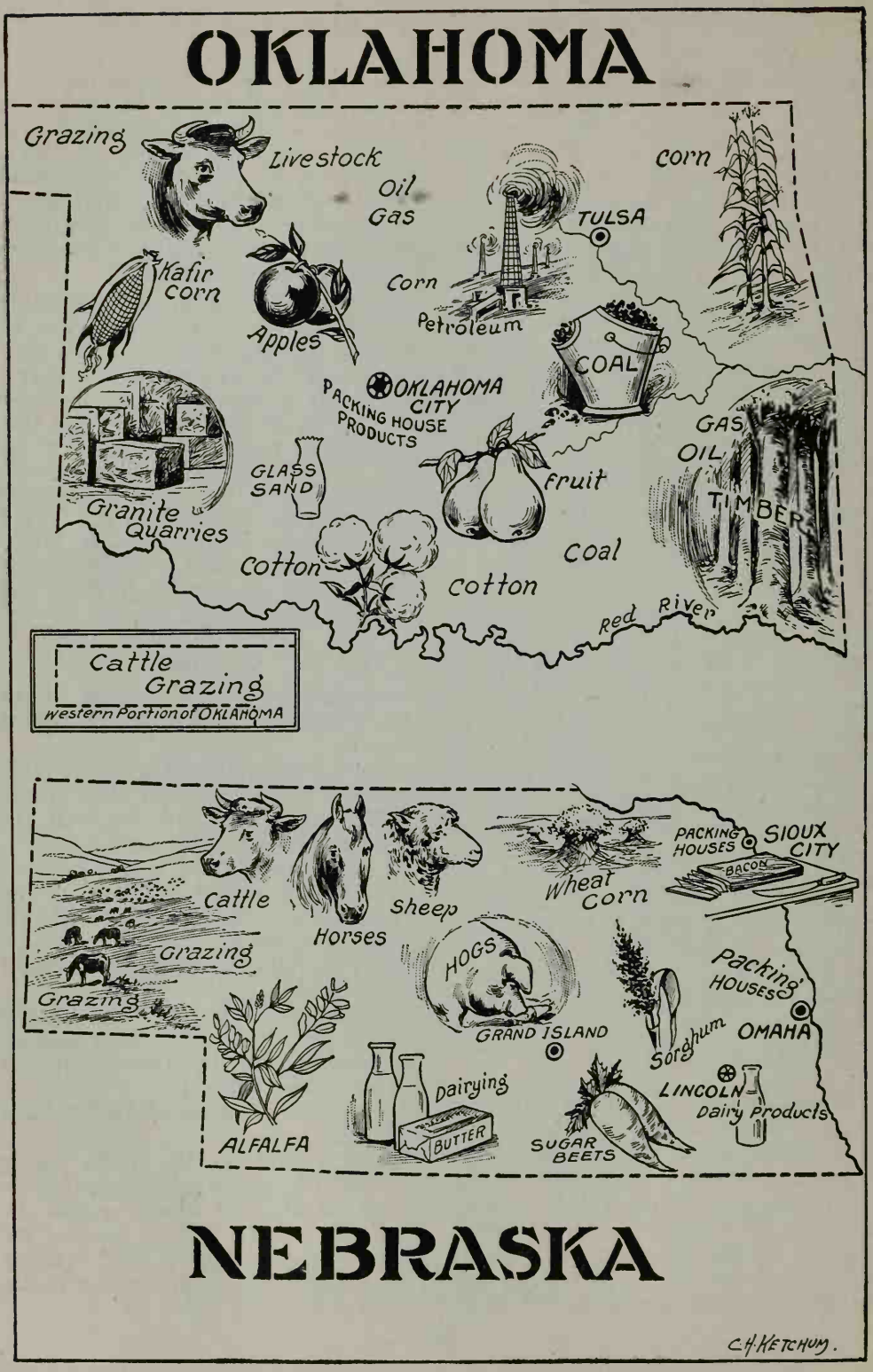
What do you think has been lacking if lignite is not complete coal. (Study the formation of anthracite coal.)

How do you think the lignite beds got on fire? (664).

Explain why east of the Missouri River is found the distinctively agricultural part of the state. (What is the effect of glacial action?)

Why are the waters of Devil's Lake salt? (2533).

Do you think the ice of the glacier stopped in its westward march, because it met the Missouri River; or does the river flow where it does, because the glacier stopped where it did? (Study moraine and work your way to an answer.)


OKLAHOMA
Grazing
Livestock
Oil
Gas
TULSA
corn
Kafir corn
Apples
Corn
Petroleum
COAL
OKLAHOMA CITY
PACKING HOUSE PRODUCTS
GAS
OIL
TIMBER
GLASS SAND
fruit
Granite Quarries
Coal
Cotton
cotton
Red River
Cattle Grazing
Western Portion of OKLAHOMA
Cattle
Horses
Sheep
Wheat
Corn
PACKING HOUSES
SIOUX CITY
BACON
Grazing
Grazing
HOGS
Packing HOUSES
GRAND ISLAND
Sorghum
OMAHA
Dairying
LINCOLN
Dairy Products
BUTTER
ALFALFA
SUGAR BEETS
NEBRASKA
C.H. KETCHUM.

Nebraska

(State article, 1972)

Location.—Nebraska as a whole is in the same latitude as Pennsylvania. It will be noted it is on the western slope of the Mississippi Valley, blending with the Rocky Mountains to the west. It is one of our prairie states. Fifty years ago the western half of the state was said to be a part of the Great American Desert.

Area and Population.—Its area is 77,520 sq. miles, only a few miles smaller than South Dakota. Its population in 1920 (Census) was 1,296,372, an average of about 17 to the square mile. Georgia is the largest state east of the Mississippi River. There are only two states west of the river smaller than Georgia, but the average density of population in the states east of the Mississippi is nearly eight times that of the states west of the river. How do you explain these facts?

The Surface Features.—The graphic representation of the products of the state indicates that, while the state is a purely agricultural one, yet the northwestern half is more strictly a grazing section. In the extreme northwest is a continuation of the Bad Lands, already discussed in South Dakota. There is the only broken section of the state. A diagonal line drawn southwest from near the northeast corner of the state divides the agricultural from the grazing sections. The rainfall in the grazing section as a whole is deficient. We must understand, however, crops are raised all over the state, recourse being taken to dry farming (865) and irrigation in the dry section.

Agricultural Products.—By far the most important agricultural product of the state is corn, which is raised in every county. The yield, however, is not good in much of the dry sections, and there we generally find considerable areas devoted to Kaffir corn (1530). Wheat is the next crop in value, and most of the wheat raised is winter wheat (compare with North Dakota). Notice alfalfa; there is not a county in the state where it is not raised. In eight years' time, ending in 1916, the production of alfalfa increased more than three-fold. This is an important fact, because alfalfa and corn mean a flourishing live stock industry; and in Nebraska packing-house products lead in value (notice at Sioux City and Omaha). Notice sugar beets. This crop seems to flourish best in the western grazing portion of the state, and in counties along the Platte River. The county most productive of all is on the Colorado line.

Loess Soil.—Nearly the entire surface of Nebraska is overlaid with loess deposits (1683), in places hundreds of feet in thickness, sometimes much more than that. This fact means exhaustless fertility of soil. In explanation of the loess, one theory is that for ages a glacial lake covered what is now Nebraska and the precipitation of its finely comminuted particles formed the loess deposits. As a corollary, it is thought by some that the small lakes found in many places are shrivelled patches of the old lake. Still more interesting is it to learn that the mud of these lakes is often rich in potash salts, which fact has given rise to a flourishing industry within the last few years, owing to the demand for potash caused by the European war.

Questions

Where is the dry belt of the United States? (See "Rainfall" 2962).

Mention some reasons why average density of population should be so much greater east of the Mississippi. Does it depend in relative ages of the states, development of manufactures or natural resources?

Why do they cultivate Kaffir corn, principally in the western counties of Nebraska?

Describe alfalfa (69).

From what you have learned of the soil of Nebraska, why would you expect alfalfa to do well? (70; and "Loess," 1683).

What is potash good for? (2334).

Oklahoma

(State article, 2088)

Location. — A glance at the map shows that Oklahoma is the southernmost of the second tier of states formed out of the Louisiana Purchase. It is on the western slope of the Mississippi Valley, fitting snugly around the north boundary of Texas. The three pan-handle counties of the state were assigned to Oklahoma because no other state could take them. A full explanation of this fact takes us back to the troublous days of slavery agitation. (See Missouri Compromise, 1879. Note that Texas was a slave-holding state, then note its northern boundary.)

Area and Population.—Its area is 70,057 sq. miles. Its population in 1920 was 2,028,283, an average of 29.2 per sq. mile. Oklahoma is one of our latest states, yet its population per sq. mile is abount the same as Arkansas and greater than either Kansas or Texas, all much older states.

Surface Featuers (2088).—The surface features of the state can—in the main—be deduced from a study of the graphic. Notice grazing in the northwest, but it is not confined to that section. That is the elevated plain and dry part of the state. (Note Kaffir corn, 1530).

Granite Quarries.—The quarries in the southwest part of the state show that there is a disturbed area. The Wichita Mountains extend across that part of the state; they are a distant outlier of the Rocky Mountain disturbance. Being granite, they indicate a very old portion of the state.

Coal and Oil.—Notice coal to the east of the center of the state. That in itself indicates the near presence of an elevated section, and we find spurs of the Ozark from Arkansas curving across the southeast corner of the state. The coal area is a continuance of the coal deposits of Kansas and Missouri. Grouping these deposits, form a mental picture of the shallow seas of the carboniferous age (501).

Other Products. — The state has abundant salt deposits; in the northwest are salt plains, evidently a portion of the bed of the old sea, the soil being plentifully sprinkled with particles of salt; there are also immense salt springs. We will discover similar deposits in Kansas. Note cotton in Red River Valley. We are again entering the cotton belt (721).

Manufactures. — The manufactures of the state are not yet developed, but the conditions of successful manufacturing are present; cheap and abundant fuel, raw material, cotton, lumber, sand (for glass), gypsum, salt, clay, good transportation facilities and rich agricultural surroundings.

Questions

Why were the three pan-handle counties not given to Texas?

How does it happen there are so many Indians in Oklahoma? (1438).

In what other state do you find Seminole Indians? (See graphic discussion of Florida.)

How do you account for the comparative density of population in Oklahoma? (Read the history of the early settlements.)

Did any such in-rush of settlers occur in the history of any other state? (454).

There are three classes of rocks (2458). What class is represented in Oklahoma?

But, judging from the oil wells, there must be other rocks. What is one?

The gypsum deposits of Oklahoma (from Oklahoma City northwest) are said to be the largest in the United States. What is it used for? (1250).

Is there any difference between glass sand and ordinary sand? (1179).

What is sand? (2539).

The coal shown in Oklahoma is bituminous. How does it differ from the coal of North Dakota?

There are two kinds of corn noticed on the graphic. What is the difference between them?

Texas

(State article, 2963)

Its Unique Relation to the United States.—There is much in the early history of Texas that we must remember when making a study of the state; we cannot otherwise understand its immense area, so greatly exceeding that of every other state. Texas was originally a part of Spanish-America. It did not come into the Union as the result of any purchase or concession. It was an independent republic, being acknowledged as such by the United States and most European governments. For ten years it had maintained its independence of Mexico, and four presidents had served it.

Its annexation as one of the independent states of the Union was in compliance with its ardent desire; but that act was followed by a war between our country and Mexico (1821), which resulted in the acquisition of the territory beyond the original limits of the Louisiana Purchase except the Oregon country (see map of territorial growth). We can understand how consciousness of its unique, independent origin—differing from that of the other states—influenced the feelings and actions of its citizens.

The Vast Area of Texas.—The area of Texas is 265,896 sq. miles, in keeping with her original status as an independent nation. Texas is larger than the combined area of France, Portugal, and Switzerland. On the graphic is shown the relative size of Texas and some of the other states. If we were to combine as one, New England, all of the Middle States, and the Chesapeake group of states, including West Virginia, we would still fall short of Texas in area. The line of greatest distance in the state would reach from Chicago to New Orleans.

Population.—We must recall that only a brief time, comparatively speaking, has elapsed since Texas was Mexican territory; and that for twenty years her development was retarded by the Civil War and the troublous days of reconstruction. Only lately has Texas fairly started in her career as a vigorous, growing state of the Union. Its population in 1920 (Census) was 4,663,228, an average population of about 17.8 to the sq. mile. That is probably a fraction only of the future population. Were Texas as densely populated as the average population of France, Portugal, and Switzerland the state would contain nearly forty-one million people.

A Self-Contained State.—And Texas could easily support such a population for it is one of the most self-contained states in the union. Its productions of all kinds can be vastly increased. Only about one-fourth of its fertile land is as yet improved. While large portions of the state are classed as semi-arid, improved methods of dry farming and irrigation will bring much of that territory under cultivation. In the Pecos River Valley, west Texas, where it was thought only a hundred square miles could be irrigated, it is now know that at least a thousand square miles can be benefitted, and the territory that can be irrigated by means of wells piercing the water bearing strata is constantly increasing. No state in the Union is more eager for improved methods of farming.

Thus it is that were a Chinese Wall flung round the state of Texas, and a population of from forty to fifty million people inclosed, the cereals and vegetables of Texas would feed them; the cotton, wool, and leather clothe them; the fruits, nuts and sugar produced furnish table delicacies; while the coal, oil, gas, timber, and water power of the state would manufacture all needed articles for utility and comfort. No state has a fairer prospect.

Surface Features.—A state of the size of Texas must contain within itself surface features that make possible all kinds of soil, resulting in the most diverse agriculture—grazing in the western plains, fruits in the east central section; cotton in the central and north-

eastern part of the state; wheat, oats, and corn over the state generally; and an enormous coastal plain, everywhere bordering the Gulf, on which are grown rice, oranges and sugar cane. The whole plain is rapidly becoming one immense truck farm; whereon are raised immense quantities of asparagus, lettuce, cabbage and the garden products of southern climes. Were all the fruit possibilities of Texas utilized, the needs of the nation in the way of orchard and garden fruits, peaches and strawberries, melons and tomatoes, would be supplied. (Study the graphic.)

Pecan Nuts.—One of the natural products of Texas is pecan nuts. This is such an important product that it has been made a subject of special research. By grafting the pecan on hickory stock the quality and quantity of the nuts are greatly increased. Pecan trees are found growing wild in many parts of the states; they can be cultivated almost anywhere. The demand for the finer variety of nuts (the paper shells) is unlimited and this industry will doubtless be greatly developed.

Quarry and Mine Products.—Two parts of the state are broken and rugged; the southwestern or extreme western part of the state, and a broken section in the very center of the state. In the former (where the southern point of "South Carolina" is placed) valuable mines of quick silver are found; silver itself is mined in the same section. Granite is obtained from the broken section in the center of the state. Coal is found in the central basin of the state. Lignite occurs in a belt extending diagonally across the state to the back of the coastal plain. The oil deposits of Texas occur in close connection with, and on opposite sides of, the eastern lignite fields. The great pool of oil tapped at Beaumont was one of the greatest oil discoveries in the United States.

Water Power.—Mention has been made of the underground flow of water over much of Texas territory. That phenomenon has been noticed in the states on the west slope of the Mississippi Valley,—Nebraska, Kansas and Oklahoma. This underground flow is tapped in many parts of Texas for artesian and irrigation purposes. To the west of the Colorado river, this underground water gives rise to large springs, the source of many streams. These springs are utilized for water power purposes; on the Guadaloupe, San Marcos, and Colorado rivers are numerous power sites, rendered possible by the elevated broken section in the center of the state.

Questions

Did any other free and independent country ever join the United States? (1284).

Did we ever refuse the request of such a country to be annexed? (2551).

Do you know of any act on the part of Texas showing that she had a stronger sense of separateness from the United States than the older states? (Study the Compromise of 1850, 673, and compare with formation of Northwest Territory, 2061.)

Texas is 213 times as large as Rhode Island, yet in one house of Congress, Texas and Rhode Island exert the same influence, explain this.

What is dry farming? (865).

What is a Chinese Wall? (1226).

Look at the indented coast of Texas and compare with Maine, how do they differ?

Is the coastal plain of Texas still increasing?

What is there in common in the early history of Texas and Florida?

Does the state flower of Texas grow in your neighborhood? (Look at it. It may not be known by the same name.)

Which grain is the more important as food, No. 8 or No. 9 of the graphic?

Both corn and cotton are represented in the graphic, which is the more important crop? (Do not answer this off hand. Make a study of the products of each, 710 and 719.)

Montana

(State article, 1899)

Location.—Montana is the central one of our northern border states, sometimes called the Keystone of the American Northwest. It is the northwest corner of the Louisiana Purchase, though only that part of Montana east of the Rocky Mountains was included in the Purchase.

Surface Features.—The main range of the Rockies crosses the western part of the state and controls the surface features, climate, and rainfall of the state. The mountains are extremely old. For ages the denuding forces of nature have been wearing down the surface; glacial ice has planed the hills; the rivers draining the state to the east have excavated great valleys, in places wide and undulating, in others narrow and confined, and into these valleys merge lateral valleys from numerous tributaries. Between the many valleys are elevated plateaus known as benches.

Area and Population.—Montana is a state, big in every way. Its area is 146,997 sq. miles. It is the third state in size in the Union; the largest of the Louisiana Purchase states. It is an empire within itself. Its population in 1920 (Census) was only 548,889, an average of about 3.8 to the sq. mile; though within recent years more than 100,000 actual settlers have thronged into the state. This development will doubtless continue for many years, for only a fraction of the land suitable for agriculture has been utilized. There is ample room for millions of settlers.

The Resources.—We can determine the natural resources of Montana from an inspection of the graphic; but lack of space prevents important details, and only a few of the agricultural products are indicated. The bench lands are cultivated by dry farming methods, but by such methods all crops do well; and wheat, rye, oats, and barley are extensively raised over the state. The valleys can be irrigated and are fertile. Notice, grazing,—cattle, sheep and horses,—in the eastern part of the state. We are approaching the grazing sections of the Dakotas. Apples do well in all the valleys of the state, especially in the Yellowstone and to the west of the mountains.

Mineral Wealth.—The minerals and timber, oil and gas resources of Montana are so great that the state is called "The Treasure State." The coal to the west of the mountains is bituminous coal. In the eastern part of the state are vast lignite deposits. Notice, we are approaching the lignite fields of the Dakotas, and geological history is different than in the west. To the west of the mountains is located also the great Anaconda copper mine, one of the greatest in the world. (Compare with Michigan.) Silver is found in connection with copper; and Montana is the largest silver producing state in the Union. Finally, attention is called to the sapphire mine near Yogo.

Scenic Attraction. — Notice Glacier National Park in the northwest corner of the state (1175). That park contains many shriveled remnants of glaciers that once overspread the state; it is a beautiful inlaid section of a scenic belt, stretching across the state, embracing snowclad peaks, canyon gorges, smiling valleys, leaping torrents,—all mantled with majestic forests.

Questions

What is the latitude of the north boundary line of Montana? (2958).

How was that line decided? (3097).

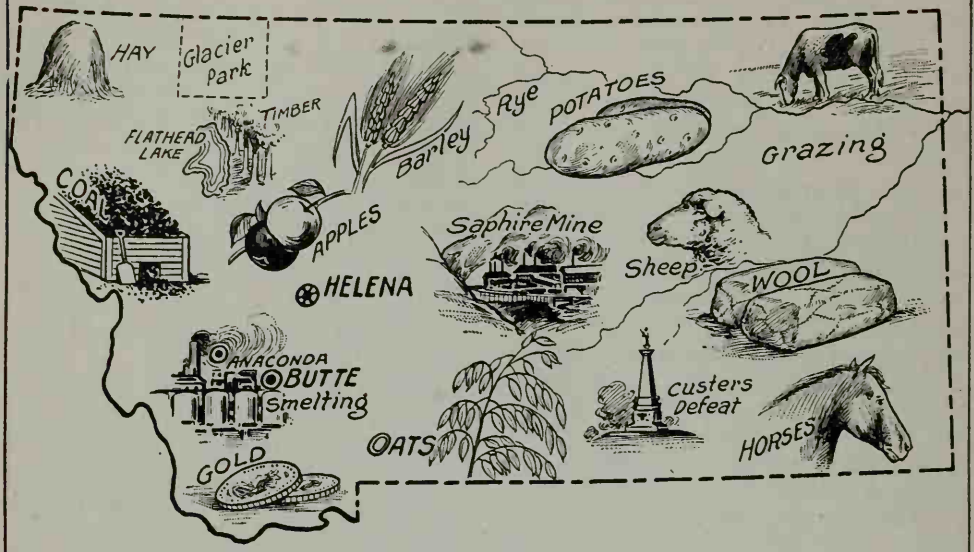
Why is it that Montana and other states immediately to the east of the Rocky Mountains have such a deficient rainfall? (2962).

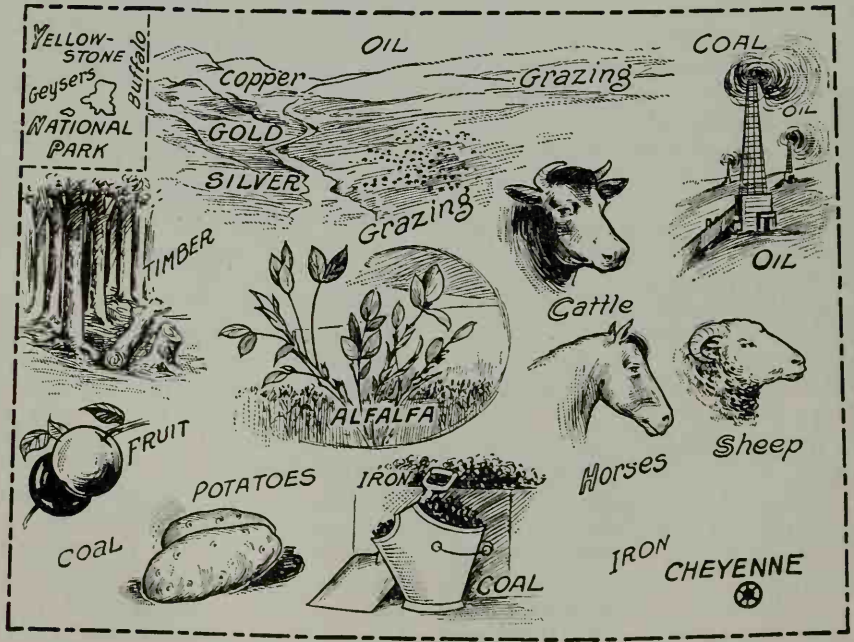
Smelting is indicated at Anaconda. What is smelting? (1824).

There are glaciers in Glacial Park; there is a lake to the south of it. Do you see any connection between these facts? What is a sapphire? (2552).

There is a monument represented on the graphic. Explain the event it commemorates (765).

MONTANA





WYOMING

C. H. KETCHUM.

Wyoming

(State article, 3171)

Location.—Wyoming is one of the central states of the trans-Mississippi section. From the map of the Territorial Growth of the United States, we note that the territory of Wyoming came to us from three sources; the larger part of the state, to the east of the main range of the Rocky Mountains, came from the Louisiana Purchase; the southwest corner of the state, from two sources.

Area and Population.—The area of Wyoming is 97,914 sq. miles, in keeping with its central location among the big states west of the Mississippi. According to the United States Census of 1920 its population was 194,402, very nearly 2 to the sq. mile; but owing to the great natural resources of the state immigration was steadily increasing.

Surface Features.—The surface features have been fully described elsewhere (3171). It is one of the most mountainous states in the Union; but there are many valleys, rolling plains, and plateaus, the latter suitable for grazing purposes. Large sections of the state along the mountain ranges are heavily forested.

Agricultural Products.—We notice grazing indicated in the eastern half of the state, but is by no mans confined thereto. Wherever the soil can be irrigated, excellent crops can be raised; and the government now has great irrigation projects on hand. The crop of greatest value in 1917 was hay. Figures show that agriculture, including live stock raising, is making remarkable growth in the state.

Mineral Wealth.—We note represented on the graphic coal, iron, and oil. Coal is virtually inexhaustible; it is found in every county of the state. It is not uncommon to find six or eight different veins in the same field, varying from four to forty feet in thickness. Most of the coal is of excellent quality. As usual where there is coal, oil also exists. It is thought by many that Wyoming is to be the greatest oil producing field in the United States. It is being developed at a remarkable rate. The oil is in a belt curving north and east from the center of the state, but some oil is found in the southwest. Study the location of that belt in connection with a map of the state.

Scenic Features.—Much of the western half of the state presents scenery of the sublimest character. Notice the Yellowstone Park in the northwest corner This park is fully described elsewhere (3182, see also article Geographical Excursions); there is no section in the world so interesting and instructive to tourists and men of science. Chapters of absorbing interest concerning long forgotten geological times can here be read. Hot springs, also found elsewhere in the state (at Thermopolis), are outlying features of this wonderful park; preserving startling evidence of nature's hidden stores of heat that may, some day, fare forth with sudden energy, as has ofttimes occurred in the past.

Questions

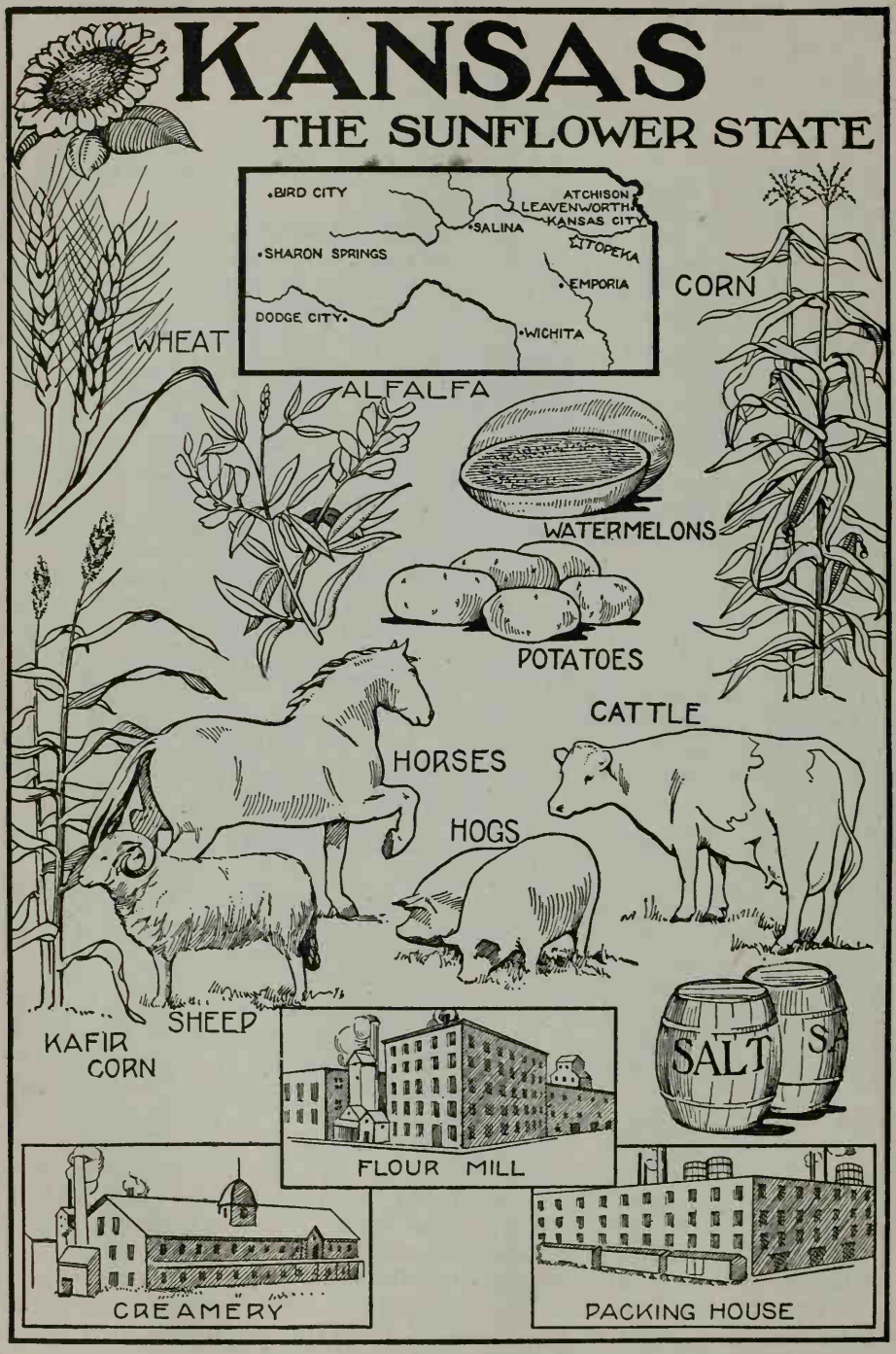
What part of Wyoming did Mexico once claim? (See map.)

We speak a great deal about the Rocky Mountains; how are mountains formed? (1147).

In general, mountain ranges are parallel to the oceans near them, do you see any relation between these facts?

Evidently, the whole western territory was the scene of great volcanic outburst. Now, were the volcanos the cause of the rugged mountains, or the mountains the cause of the volcanoes? (Study mountain formation and work your way to an answer.)

In the park are the remains of fossil forests, one over the other; over the state generally are coal mines piercing several successive seams of coal. Explain in full the mental pictures these facts enable you to form of climate and conditions in Wyoming in geological times. Give your reasons.


KANSAS
THE SUNFLOWER STATE
BIRD CITY
ATCHISON
LEAVENWORTH
KANSAS CITY
SALINA
TOPEKA
SHARON SPRINGS
EMPORIA
DODGE CITY
WICHITA
WHEAT
CORN
ALFALFA
WATERMELONS
POTATOES
CATTLE
HORSES
HOGS
SHEEP
KAFIR CORN
SALT
FLOUR MILL
CREAMERY
PACKING HOUSE

Kansas

(State article, 1534)

Location.—Examining the map of the Louisiana Purchase, we note the same orderly development of the Louisiana Purchase into states as was the case in the Northwest Territory. The most southern state in the second tier of states west of the Mississippi River, as originally planned, is Kansas, Oklahoma being set aside as a permanent home for the Indians. We further note that all the states in the Purchase were given areas on a more generous scale than the older states to the east of the river.

Area and Population.—The area of the state is 82,158 sq. miles. With one exception, it is the largest state formed out of the Louisiana Purchase. In 1920 its population was 1,769,257, an average of some over 21 per sq. mile. Quite naturally, it was the first state in the second tier of states to be admitted. The peculiar political condition of the times hastened its early settlement (1536). Its admission into the Union occasioned one of the most tense political situations in the history of our country. (See "Kansas-Nebraska Bill.")

Surface Features. — To understand the surface features of Kansas, represent to yourself a level plain slightly sloping from west to east and southeast, with rivers flowing over that surface in the general direction of the slope. At first, when the rivers were fed by melting ice from distant glaciers, the valleys would be broad, afterward shrinking to narrow proportions as present conditions supervened. The result was a rolling prairie land diversified with many valleys, no two alike and constantly varying in width, the bluffs advancing at places into the lowlands, then retreating. To understand the bold bluffs we must consider one of the properties of loess soil, for that is the soil in much of western Kansas. Loess tends to a columnar formation and so stands up well; that is, does not crumble to a slope when dug into.

Agricultural Products.—The graphic of the state represents mainly agricultural products. From the location of the state, combined with what we have learned as to its soil, we realize that agriculture is and must continue to be the great industry of the state. In 1917 the value of the crops of Kansas was over half a billion dollars. Corn was by far the most important crop, followed by wheat; alfalfa hay was third in value. All the principal agricultural crops are raised generally over the state; but the yield is larger in the eastern part of the state.

Mine Products.—Salt is indicated on the graphic. There are immense salt plains south of Dodge City, which are continuous with similar plains in Oklahoma (see discussion of that state). There are also coal and petroleum deposits. The coal fields in the southeastern part of the state are a continuation of the Missouri coal field, extending also into Oklahoma. As in other cases, petroleum and gas are found, some distance removed from the coal belt, but in evident connections with it.

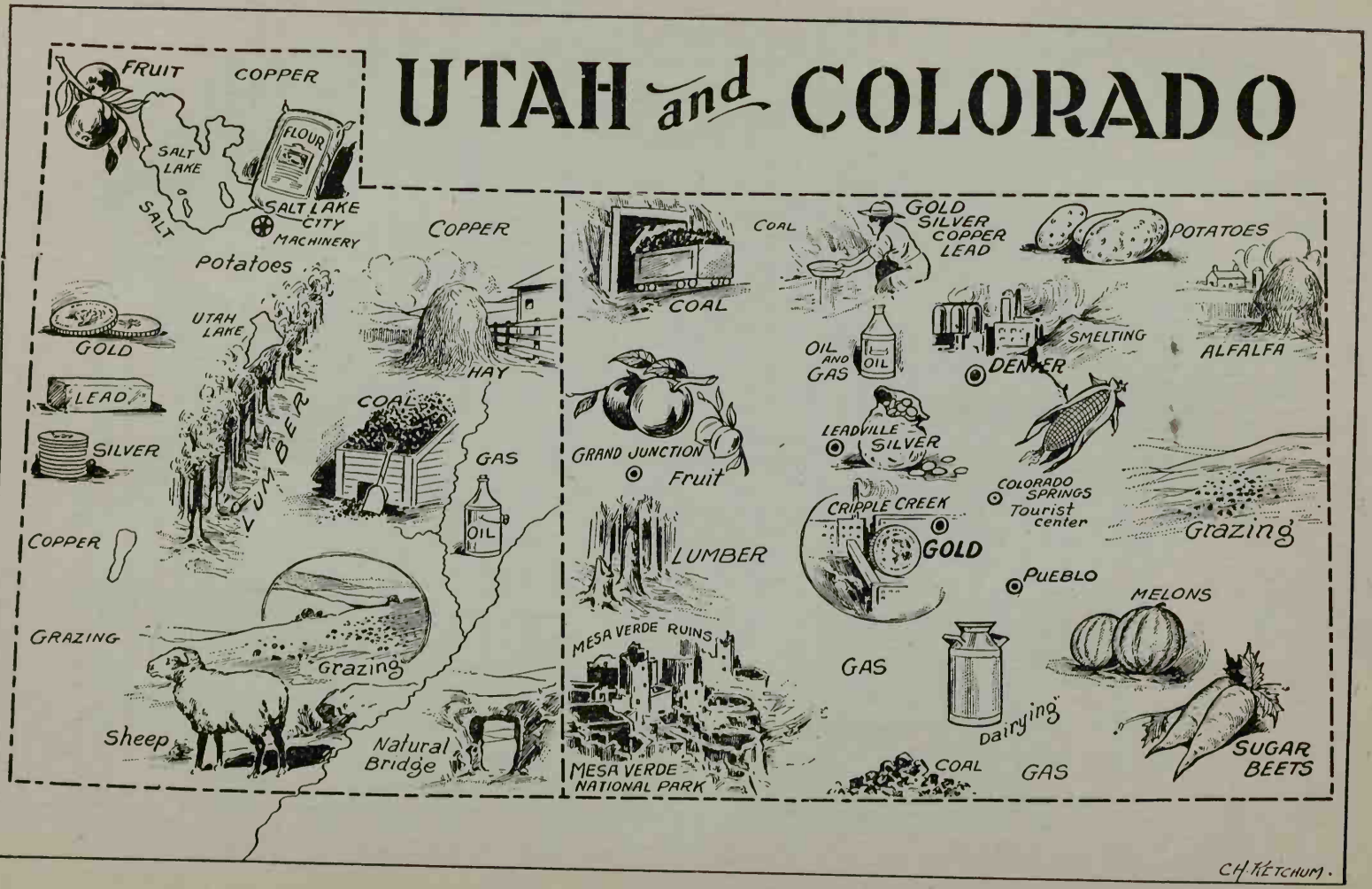
Questions

There would have been twenty-four states fomed out of the Louisiana Purchase if their area had been kept down to the average of the states formed out of the Northwest Territory. Would this have been an advantage? Would it have made any difference politically?

The four smaller of the states formed out of the Louisiana Purchase were admitted before Texas came into the Union. Did the great area of Texas influence the statesmen of the day to be more generous? What was the struggle over the admission of Kansas about? (1536).

The numerous coal veins in southwestern Kansas are continuous with similar deposits in Missouri and Oklahoma. Do you see any connection between the coal deposits and the salt-plains?

The western plains of Kansas and Nebraska are suited to grazing. What kind of grass grows wild on those plains? (412).


UTAH and COLORADO
FRUIT
COPPER
FLOUR
SALT LAKE
SALT
SALT LAKE CITY
MACHINERY
Potatoes
COPPER
GOLD
UTAH LAKE
HAY
LEAD
SILVER
LUMBER
COAL
GAS
OIL
COPPER
GRAZING
Grazing
Sheep
Natural Bridge
COAL
GOLD SILVER COPPER LEAD
POTATOES
OIL AND GAS
SMELTING
DENVER
ALFALFA
GRAND JUNCTION
Fruit
LEADVILLE SILVER
COLORADO SPRINGS
Tourist center
Grazing
CRIPPLE CREEK
GOLD
LUMBER
PUEBLO
MELONS
MESA VERDE RUINS
GAS
Dairying
SUGAR BEETS
MESA VERDE NATIONAL PARK
COAL
GAS
CH. KETCHUM.

Colorado

(State article, 649)

Location.—Colorado is the heart of the mountain section of our western country. The main range of the Rocky Mountains traverse the center of the state north and south. The west half of the state is a complex of minor mountain ranges, with intersecting valleys. To the east of the main range the surface sinks to the rolling plains of western Kansas.

Area and Population.—It is one of our large states, its area being 103,948 sq. miles. Notice its regular outline. The diagonal line of the state would extend from Chicago to near Memphis. Its population in 1920 was 939,376, some less than ten to the sq. mile.

Agricultural Products.—A close inspection of the graphic is instructive. Sugar beets are produced over the state generally, but more freely in the eastern part. The fruit belt of Colorado extends east and west through the center of the state. A great deal of land requires irrigation to produce good results; and dry farming is extensively employed where irrigation is not feasible. There is hardly a county in the state that does not possess considerable land suited to grazing purposes.

Mineral Products.—Colorado is very rich in minerals; we would expect such a result to follow from its mountainous character. As the mountains were forced up they brought with them the heavy minerals from deep in the interior,—such as gold, silver, copper, lead, and zinc. Colorado's supplies of these minerals are said to be inexhaustible. Two metals not shown on the graphic are tungsten and metals of the radium group. The deposits of both of these ores are the richest known. The carnite ores from which radium is extracted were, before the war, sent to Germany. With government aid the ores are now treated in this country and the price of radium has been greatly reduced and a wonderful industry opened. The Cripple Creek gold fields, near the center of the state, are declared to be the richest gold district in the world, with the exception of South Africa.

Coal.—Coal is found quite generally in the mountain section of the state and in the southeast. It is inexhaustible in quantity and is of a high grade; large deposits of anthracite exist. Anthracite coal is found to the west of the main mountain range, where the upheaving force was exerted most abundantly, hence pressure greater. (Compare with Pennsylvania.)

Oil.—It is said that petroleum in inexhaustible quantities can be distilled from the vast shale deposits of the state (2622). Notice how true it is that coal and oil exist in the same section. How came the shale to be full of oil?

Scenic Colorado.—No state offers a wider variety of beautiful mountain scenery, and no state has done more to attract tourists; it has built more than 40,000 miles of improved highways. Thousands of tourists visit the state every year. Mesa Verde National Park (see Graphic) contains the ruined homes of an unknown people; it is also a section of great scenic attraction.

Questions

Examine the map of Territorial Growth, about how much of Colorado came to us from the Louisiana Purchase?

We have now considered all the states,—wholly or in part formed out of the Louisiana Purchase. Which is the largest state? Which the smallest?

As a whole, are the states on the western slope of the Mississippi Valley more or less fertile than those on the east? How do they compare in rainfall?

In western Nebraska, Kansas and eastern Colorado we find a great deal of underground water; what is the explanation?

What is tungsten used for?

What is radium? What is it used for? Have the properties of radium afforded us an insight into the nature of matter?

Utah

(State article, 2989)

Location.—Utah lies immediately west of Colorado, and the eastern part of the state presents much the same surface features. But Utah is the first state we have to study, the greater portion of which lies in the Great Basin. On a map of the United States one can see the outlines of this basin, ringed round with mountains, containing within its area numerous broken ridges (2960). A study of its mountain borders, especially the great Sierra Nevadas, shows us at once that the Great Basin is an arid region. Salt Lake and other lakes within the Basin are but remnants of a mighty lake (Lake Bonneville), which once filled the entire Basin area (1225).

Area and Population.—The area of Utah is 84,990 sq. miles. Its population in 1920 was 449,396, or over five to the square mile; about half the average population of Colorado. It is well to make a study of the factors that attract permanent settlers and forecast future conditions. (Dry Farming, Irrigation, and Mining Interests.)

The Graphic.—Making a study of the graphic, we see reflected the general facts stated touching the surface features. We notice a continuation into Utah of conditions in southwestern Wyoming. On irrigated lands in the valleys, alfalfa, potatoes, and sugar beets do well. These conditions prevail over the state generally, wherever irrigation is possible. Dry farming is proving that a great deal of Utah land formerly deemed worthless can, after all, raise profitable crops.

Minerals.—The great wealth of coal deposits in Colorado and Wyoming are continued into Utah; evidently the geological history of these states was much the same. It might be added that the coal deposits, in general terms grouped along the eastern and southern rim of the Great Basin, are very great in extent and of excellent quality.

The Great Basin Area.—The western and southwestern part of Utah, generally speaking, is in the Great Basin. Land in the valleys where irrigation is possible is very fertile. Dry Farming enables fair crops to be raised over other very considerable sections; but semi-desert conditions are quite general. To the south and west of Salt Lake is a veritable salt desert, containing wonderful beds of nearly pure salt. In the broken spurs and ridges of that part of the state minerals are found, as shown on the graphic; and this section is a part of the mineral belt extending west into Nevada.

Timber.—Starting from the southwest corner of Utah and curving to the north and then east, is the timber belt of the state. It is nearly all reserved in national forests. Its location is interesting. It is along the southern and eastern rim of the Great Basin; roughly speaking, it coincides with the coal area of the state. It would seem as if the abundant forest of the coal epoch are still represented, under greatly changed conditions, in the timber belt of Utah.

Questions

What causes the Great Basin to be an arid section?

Do you know of any body of water other than Salt Lake that will hold up the human body? (793).

How do you account for the great salt desert to the south and west of the lake?

There is another vanished lake with which to compare Lake Bonneville. (See graphic discussion of North Dakota.)

How would our present Great Lakes compare with these ancient lakes (roughly estimate the probable area of Lake Bonneville).

Mention one of the latest methods of extracting gold from its ores (1825).

Notice the presence of hot springs in many parts of Idaho; compare with hot springs in Wyoming, in Arkansas, in Virginia. What is the source of heat noticed in these springs?

Idaho

(State article, 1412)

Location.—The Oregon country is that part of the United States relinquished by Great Britain in accordance with the Compromise Treaty of 1846. (See map of Territorial Growth, also 1021.) This section has been divided into three states, of which Idaho is the eastern one, bordering the Louisiana Purchase states on the east.

Area and Population.—Its area is 83,888 sq. miles, in keeping with its location among the large states west of the Mississippi. The diagonal line of greatest distance in the state would extend from Chicago to Philadelphia. Its population in 1920 was 431,866, an average of some over five to the sq. mile. Compare this with average populations in surrounding states.

Surface Features.—The surface features are well described elsewhere (1412), but notice, the southern part of the state is the northern rim of the Great Basin; on the graphic of the state this fact as well as the principal surface features are indicated.

Phosphate Rock.—Notice the phosphate deposits in the southeast. That is in Bear Lake County. Bear Lake itself is a fragmentary remain of Lake Bonneville which once covered most of the Great Basin. That fact explains the phosphate formation. (See graphic discussion of Tennessee.) The supply is said to be inexhaustible. Potash beds have been discovered in the extreme southwestern section of the state. The stress of modern times will make these deposits of great value.

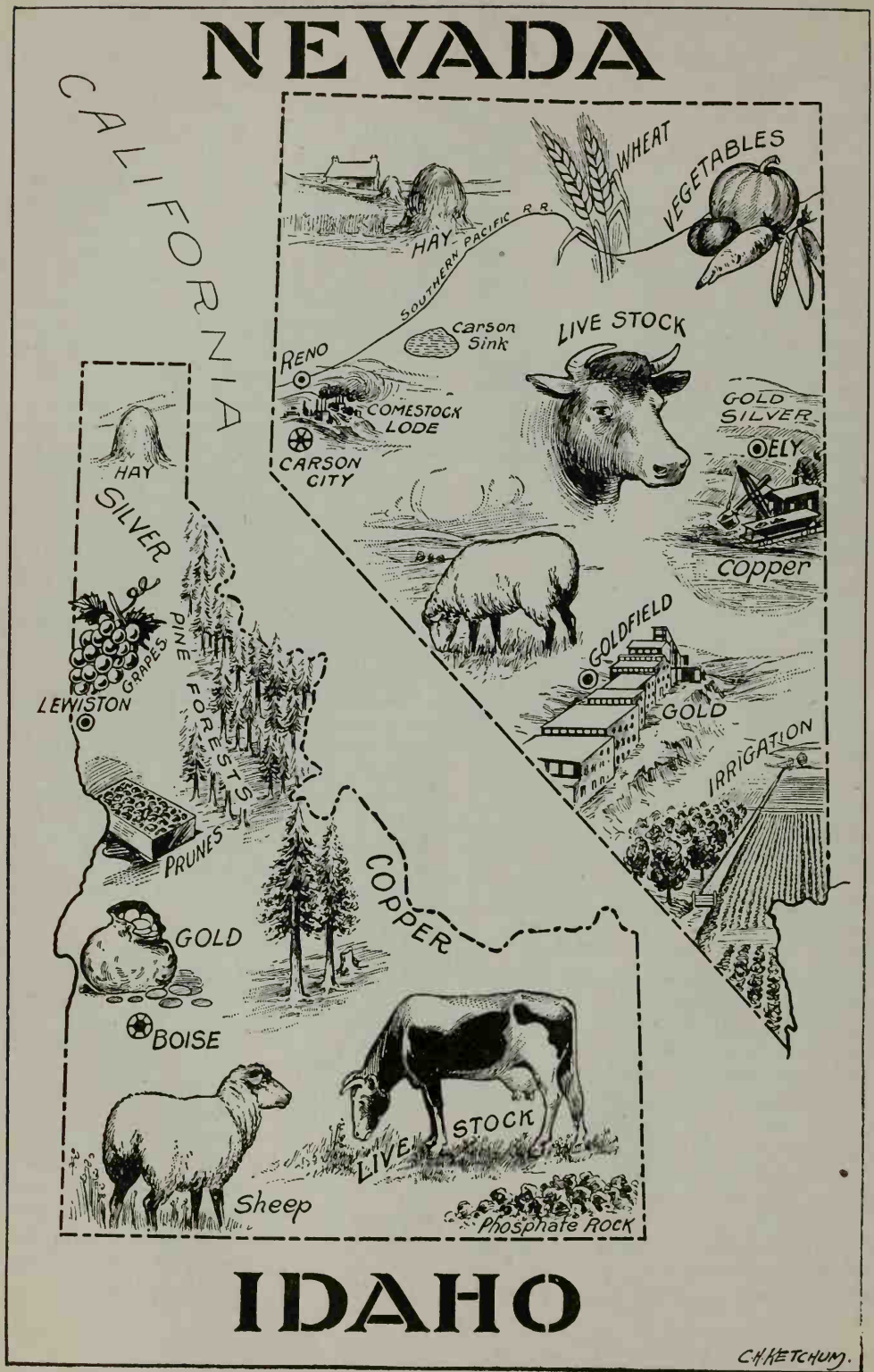
Mineral Wealth.—Conservative engineers estimate that central Idaho will soon be one of the greatest mining districts in the world. A belt of gold ore deposits extends from the center of the state in a generally southeast direction for hundreds of miles. Improved methods of mining make very profitable poor paying deposits of former years. Immense deposits of tungsten are found in Custer County. Very large copper mines, as yet undeveloped, are known to exist in the west-central part of the state.

Fruit.—Notice the fruit represented around Lewiston; but fruit does well in all the valleys of Idaho. One of the greatest fruit crops is prunes. The fruit section of Idaho extends into Washington. By reason of a canal recently completed at The Dalles, Oregon (2112), Lewiston, Idaho, is now a sea port town, and small ocean-going ships are to be seen at its wharfs. This makes Lewiston a great fruit shipping center.

Agriculture.—In the river valleys all the principal grains do well. Where possible irrigation is extensively employed. Grazing is general over the state. Sheep raising is a prominent industry. Dairying is prominent, especially in the southeastern part of the state. The several valleys of the Snake River are all eminently suited to agriculture (1412). Notice timber to the east of Lewiston, and of course over the state generally, along the mountains.

Water Power.—There is probably not a county in Idaho that does not have from one to dozens of water power possibilities, either from the Snake River or one of its tributaries. The southeast counties get power from Bear River. There are more electrically heated homes in Idaho than in any other equal territory in the world. Millions of horse power can be developed.

Coal.—Coal is found in Idaho and in the other states of the Oregon cession, but not to compare with the immense deposits of coal in states more centrally located, and east of the Rocky Mountains. Compare with Montana, Wyoming, Colorado and parts of Utah. Compare this fact with what we found true of the coal belt in relation to the Appalachian Mountains, as in the coal beds of Pennsylvania and Virginia. Notice that the Rocky Mountains and Appalachian Mountains, in a general way, inclose the coal measures of the United States.


NEVADA
CALIFORNIA
HAY
WHEAT
VEGETABLES
SOUTHERN PACIFIC R.R.
Carson Sink
LIVE STOCK
RENO
COMESTOCK LODE
CARSON CITY
GOLD
SILVER
ELY
copper
HAY
SILVER
GRAPES
PINE FORESTS
LEWISTON
GOLDFIELD
GOLD
IRRIGATION
PRUNES
COPPER
GOLD
BOISE
LIVE STOCK
Sheep
Phosphate Rock
IDAHO
C.H. KETCHUM.

Nevada

(State article, 1938)

Location.—Nevada, except the southern part, is in the Great Basin of the West. The peculiarities of this elevated plateau control the surface features and industries of the state. The rainfall is very deficient and there are large areas of actual desert. Still we must reflect that the soil is naturally fertile, needing only moisture; that irrigation is being more and more extended; dry farming is possible in large areas; diversified intensive farming is being introduced in the valleys; and underground water is found in many sections.

Area and Population.—Nevada is one of the largest states of the Union, having an area of 110,690 sq. miles, nearly as large as the combined area of New York and New Englaand. The diagonal line of greatest length in the state would reach from Chicago to Philadelphia. Its present population is only a small part of what could easily be supported in the state. In 1920 the population was 77,-407, an average of less than one to the square mile. It is interesting to compare the area and population of Nevada with corresponding figures for Rhode Island.

Agricultural Products.—The agricultural possibilities of Nevada are only in process of development. From the graphic we notice hay, wheat and vegetables in the northern part of the state. Sugar beets and onions are produced in large quantities around Fallon, east of Carson City. The Humboldt River crosses the northern part of the state, and lateral valleys lead from it. We find productive lands in the valleys where irrigation can be put in practice.

Live Stock and Dairying.—Great attention is now paid to live stock and dairying which are introduced wherever possible. Creameries are found in several of the more important valleys. Large herds of cattle, horses, mules and sheep are found wherever conditions are favorable.

Irrigation.—In many sections of the state underground water is found and artesian wells are located in the subtropical part of the state, where the land is devoted largely to fruit, melons and garden products. All streams in the state are being conserved for irrigation purposes, and the government is constructing a large irrigation project near Fallon. In the western part of the state extensive use is being made of water power, for pumping underground water for irrigation. Thus the cultivatable land is increasing in amount every year.

Mineral Wealth.—In Utah we noticed deposits of valuable minerals in the western part of the state. That mineral belt extends west into Nevada. Notice the copper deposits at Ely and gold at Goldfield. Near Carson City was discovered the great Comstock Lode (1990). There is some lignite coal in the northeast part of the state. Refer to what has just been said about coal in Idaho, and notice there is almost no coal in the Great Basin.

Questions

Look at the machine used to mine copper at Ely, can they use such a machine in the copper mines of Michigan?

Compare the gold mine picture at Comstock with that at Goldfield. Do you think the one formation is the same in each case?

In what two ways do deposits of minerals occur? (1857)

We find underground deposits of water; where is the source of that water? (Look at a large atlas.)

There are several lakes in the western part of the state, near Reno; can you trace any connection between them and Salt Lake, Utah? (Study graphic discussion of Idaho.)

What is the United States Government doing to assist the arid western states? (1471).

Point out all parallels between Great Salt Lake and the Caspian Sea (575).

Who were the Cliff Dwellers? (621).

ARIZONA
NEW MEXICO
GRAND CANYON
OF THE COLORADO
COLORADO RIVER
NAVAJO
INDIAN
MOQUI
INDIAN
RESERVATION
RESERVATION
TIMBER
SHEEP
CATTLE
DAIRYING
PHOENIX
SMELTING
ROOSEVELT DAM
ORANGES
Lemons
OSTRICH RAISING
Alfalfa
Copper
Silver
PETRIFIED FOREST
ZUNI
Indian Village
COPPER
SILVER
LEAD
GOLD
TIMBER
RIO GRANDE RIVER
COAL
Cooper
GOLD MINING
GOLD
HORSES
SANTA FE
CLIFF HOUSES
CATTLE
SUGAR BEETS
Sheep
ROSWELL
GREAT STAKED DESERT
corn
APPLES
HAY
ARTESIA
Alfalfa
Artesian well
Canteloups

New Mexico

(State article, 2009)

Location.—New Mexico and Arizona are the two southern states formed out of territory that accrued to the United States as a result of the Mexican War, situated between the Pan-handle of Texas and California. New Mexico is the eastern state of the two. It is in the same latitude as Arkansas, Tennessee, and the northern parts of Mississippi, Alabama, and Georgia.

Area and Population.—New Mexico is one of our large interior states, with an area of 122,634 sq. miles. This one state is nearly double the area of New England. Its population in 1920 was 360,350, an average of less than three to the sq. mile. The population of New England is twelve times as great. But New Mexico is just starting on its career of development.

The Graphic.—The Rio Grande river is represented on the graphic. Its valley is fertile, since into it has accumulated the soil wreckage of ancient hills and plateaus. Wherever possible, irrigation is resorted to and sugar beets, alfalfa, garden fruits and melons flourish. Dona Ana County (southern Rio Grande Valley) is the garden spot of New Mexico. Its climate approaches that of Egypt. It is a county twice the size of Delaware, mountain ringed, a beautiful shut-in valley. Notice the southeastern part of the state. That is in the Pecos River Valley, that we discussed in Texas with its abundant supply of underground water. That valley is continued into Texas. Notice the artesian wells at Artesia. (See Texas graphic discussion.) There are great springs of water at Roswell of an artesian nature. The valley from Roswell down is a smiling section where all crops and fruits flourish.

Grazing.—Notice grazing farther to the north. While grazing is quite general, that part of the state adjoining the Texas Pan-handle is the principal grazing section of the state. It is the plain section of New Mexico.

Mineral Products.—Notice the mineral products in the north and in the southwest; both sections are the scenes of great mountain upheaval. But mining is general over the state, and immense coal deposits, of excellent quality, exist in both sections. It should be noted that New Mexico leads the world in the production of turquois. The principal mines are near Santa Fe. A very singular product indeed is guano of which thousands of tons have been taken from bat caves in Socorro County.

Interesting Features.—Notice the ruined cliff houses, also the still inhabited pueblo of Zuni (compare with graphics of Colorado and Utah). There are literally hundreds of hot springs scattered through the more broken parts of the state; and there are celebrated medical springs at various places. Carlsbad, to the south of Artesia, bids fair to rival Carlsbad across the sea. As in other sections of the Rocky Mountains, old volcanos, lava beds, and thermal springs bear eloquent testimony to internal fires.

Arizona

(State article, 143)

Location.—The western one of the two southern states formed out of the Mexican Cession. It guards California, fronts Mexico on the south, and opens a passage-way to the interior of the United States. Like northern and western New Mexico, much of the state is a complex of mountain ranges, elevated plateaus, and isolated peaks with intersecting valleys. In early ages the rushing streams coursed down these valleys laden with soil wreckage of older hills and plains which they deposited along their course. The present rivers of the state wind through these old valleys which need only the aid of irrigation to become smiling scenes of peace and plenty.

Area and Population.—Arizona is another inland empire; its area being 113,956. The united area of New York, Pennsylvania, New Jersey and Mary-

land is but little more. Its population in 1920 was 334,162, some less than three to the sq. mile. Like many others of our western states its resources are just becoming known, its period of development is at hand.

The Graphic.—As the graphic discloses, Arizona is not altogether a sterile waste of forbidding mountains, cactus-covered plains, and sage grown valleys. From the center of the state south (study graphic) we have the valleys of the Salt, Verde, Gila, San Pedro, and Santa Cruz. In places narrow, these valleys widen out and we have a succession of oases across the state. Irrigation is required; much has been done, but to secure best results government aid is required (notice Roosevelt Dam near Phoenix, consult 1470), and the results are extremely gratifying wherever an irrigating ditch can be run. Alfalfa is the great crop, but all root crops do well.

Sub-Tropical Fruits.—Oranges and lemons will grow anywhere in the southern valleys. The Salt River Valley is said to be an oasis of palms and fountains, of orange groves and orchards, and green meadows, set in the midst of the desert. The government has introduced the date palm and they are said to be doing well, and there are groves of almond trees near Phoenix.

The North Half.—The northern part of the state is not so inviting. It is a series of elevated plateaus, broken by tremendous canyons, and forest-clad mountain ranges. It is, at places, rich in pasture. Notice, grazing is represented. In that section is the great Mogollen Forest. Notice the Painted Desert with the Petrified Forest in the east (see Geographical Excursions of the United States). In the northwest is the sublime scenery of the Grand Canyon (653). No country in the world bears more eloquent testimony to the long conflict between the forces of fire and water.

Minerals.—Notice the presence of copper and silver in the southeast; that belt is a continuation into Arizona of the mineral belt of New Mexico. It will be recalled that we have traced all along the flanks of the Rocky Mountain range mineral bearing veins; it can be stated that the Rocky Mountain System is much richer in silver, gold and copper than the Appalachian System on the east, but this statement is not true of iron. Does this fact have any significance for you? (See Geology in this series.)

Questions

Eastern Tennessee and Northern New Mexico are in the same latitude, both are mountainous sections. How do they compare in mineral deposits? In climate? In general fertility?

New Mexico and Arizona were once far better watered than at present. Suggest some reason for the change in this respect. Glaciers? Great Basin inland sea? Recent elevation of the Sierra Nevada?

The climate of lower Rio Grande approaches that of Egypt. What is the climate of Egypt? What other points of similarity do you notice? (913).

Where does the water for the artesian wells at Artesia probably come from? What keeps it from coming to the surface farther north? (139).

Until very recently an animal might have been found in the desert section of this graphic, highly valued as a beast of burden in Arabia. What is it? (462).

What portion of the territory represented on the graphic did we purchase from Mexico in 1854? (118). What foreign government suggested to Mexico a possible means of recovering Arizona and New Mexico? (See European War.)

The second oldest town in the United States is represented on the graphic, which one is it?

Notice the Petrified Forest in Arizona, do you know of any other petrified forest? (See Colorado.)

One of the plants on the graphic has been the subject of very interesting experiments by Mr. Burbanks; outline the same.

Oregon

(State article, 2109)

Location.—Oregon is the southern state of the three formed from the Oregon Cession of 1846. It is the middle one of the three Pacific coast states. The climate, rainfall and consequent productions of the state are influenced by its proximity to the Pacific Ocean. Its surface features are influenced by outlying ranges of the great mountain disturbance of the Rocky Mountain System, just as the Appalachian upheaval influences the surface features of the entire Atlantic coast.

Area and Population.—Oregon is the largest of the Oregon Cession states, its area being 96,699 sq. miles. Compare this with similar figures of the other two states. Its population in 1920 was 783,389, an average of about eight to the sq. mile. A much larger population can be supported in the state.

Products of the State.—A study of the graphic discloses the principal products of the state, located where they are prominent. We must understand they are found generally over the state where conditions are favorable. Timber is represented in the east and in the west, but there is not a county in the state where lumbering interest is not represented. The aggregate is very large. Portland is in the center of a very active lumber producing section.

Minerals.—Notice gold in the east and coal in the southwest. In general terms, the mineral belt of the state extends between those centers. There are literally thousands of mines in the state, most of them gold and copper. The greatest coal field is in Coos County in the southwest. There are a few other fields in the state. Where gold mining is represented in Baker County there are two hundred gold mines, besides rich placer mines. Notice that part of the state is very rugged (2110).

Fruit is represented in the Willamette Valley, in the west; curving to the south is the Rogue River Valley; to the north the Hood River Valley. These valleys are celebrated for their orchard fruits,—apples, plums and cherries. Strawberries and bush berries of all kinds do well. Notice hops in the west; Oregon leads the Union in the production of hops. Notice that the hop belt extends north into Washington.

Grazing.—Stock grazing is general over the state. In Lake County, where horses and cattle are shown, more than 200,000 sheep, 70,000 cattle and 10,000 horses are pastured every year. Of course, dairying is very active. This is especially true of the west coast and Willamette Valley.

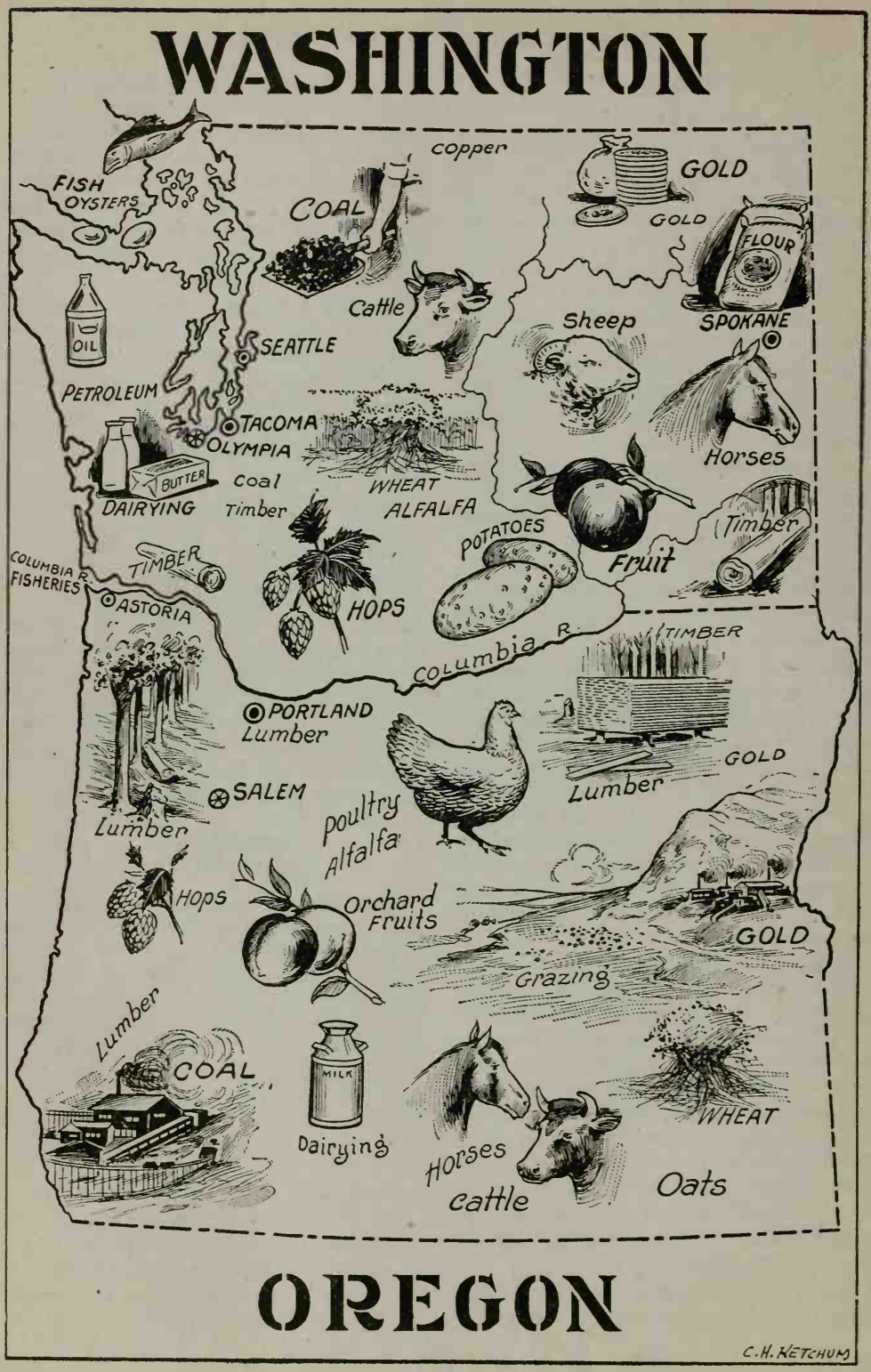
Interesting Features.—Some of the grandest scenery in the world is to be found in Oregon. The Columbia River is the second in size in the United States, and it affords scenic features of greatest charm. It cuts its way through a gorge of wonderful sublimity. Multnomah Falls is one of the most impressive cataracts in the world. The Falls of the Willamette, at Oregon City, furnish abundant water power for manufacturing purposes. At Vale, in eastern Oregon, is a spring that pours forth boiling water at all seasons.

Washington

(State article, 3063)

Location.—Washington is the northwest corner state of the Union; also one of the Oregon Cession states. Notice the indented coast to the southwest, the bold promontory of the Olympic Peninsula, and then the far-reaching, wonderful indentation of the Puget Sound region. When, in addition, we learn of numerous lakes in that same section, we are not surprised to learn that all of western Washington has been exposed to glacial action.

Area and Population.—Washington is the smallest of the three Oregon Cession states, its area being 69,127 sq. miles. It will be noticed that area is larger than the area of New England. It is the most populous state of the three states of the


WASHINGTON
FISH
OYSTERS
COAL
copper
GOLD
GOLD
FLOUR
Cattle
Sheep
SPOKANE
OIL
SEATTLE
PETROLEUM
TACOMA
OLYMPIA
Horses
BUTTER
DAIRYING
coal
Timber
WHEAT
ALFALFA
POTATOES
Fruit
Timber
COLUMBIA R.
FISHERIES
TIMBER
HOPS
ASTORIA
Columbia R.
TIMBER
PORTLAND
Lumber
GOLD
SALEM
Lumber
poultry
Alfalfa
Lumber
HOPS
Orchard
Fruits
GOLD
Grazing
Lumber
COAL
MILK
Dairying
Horses
cattle
WHEAT
Oats
OREGON
C. H. KETCHUM

Oregon Cession. In 1920 its population was 1,356,621, an average of over 20 to the sq. mile.

Surface Features.—About a third of the way across the state from the west we encounter the Cascade Range of mountains, which divide the state into two sections, differing in many respects. Western Washington is a glacial drift section; east of the Cascade Range the soil was formed by volcanic action, that entire section being buried under volcanic ashes in places seventy-five feet deep. This, of course, has been worked over by the elements for ages, but was not subjected to glacial ice. It is that soil that renders possible the wonderful fruit production of eastern Washington and the many fertile agricultural valleys of that part of the state.

Rain Fall.—West Washington has, in general, a much greater rainfall than east Washington, but the amount of precipitation varies. Some parts of west Washington have nearly ninety inches a year; other sections only about a third as much. In east Washington the rainfall is deficient over large sections, and irrigation is resorted to.

The Graphic.—These facts are reflected on the graphic. The great forest reserves are in west Washington, and the timber is of an exceptionally good quality. Originally, that entire section was one vast forest, but there are other timber areas in the state.

Fruit Belt.—A very wide and somewhat irregular belt, parallel to and lying along the eastern slope of the Cascade Mountains, is the orchard fruit belt of the state; and every year the fruit industry is becoming more important. Yakima Valley and the other valleys to the north of Yakima County are wonderful orchard valleys; but all eastern Washington is in the fruit belt. Irrigation is practiced in most of the fruit part of the state. From eastern Washington are shipped thousands of carloads of fruit every year; over half are apples, and about half of the total shipment is from Yakima. West Washington is the berry section of the state,—strawberries, raspberries, blackberriees and logan-berries are raised in abundance.

Agricultural Products.—All the usual grain crops are grown over the state generally, though wheat is principally grown in eastern Washington; oats in western Washington. Notice, dairying in the west is a very important industry. King County, near Seattle, is the center of dairy interest. Notice, where stock raising is made prominent. That is the only section of the state where the hill ranges have not been divided into small holdings.

Coal.—Notice the location of coal (also near Olympia). All the coal is west of the Cascade Mountains in the present timber section of the state, where the precipitation is ample.

Questions

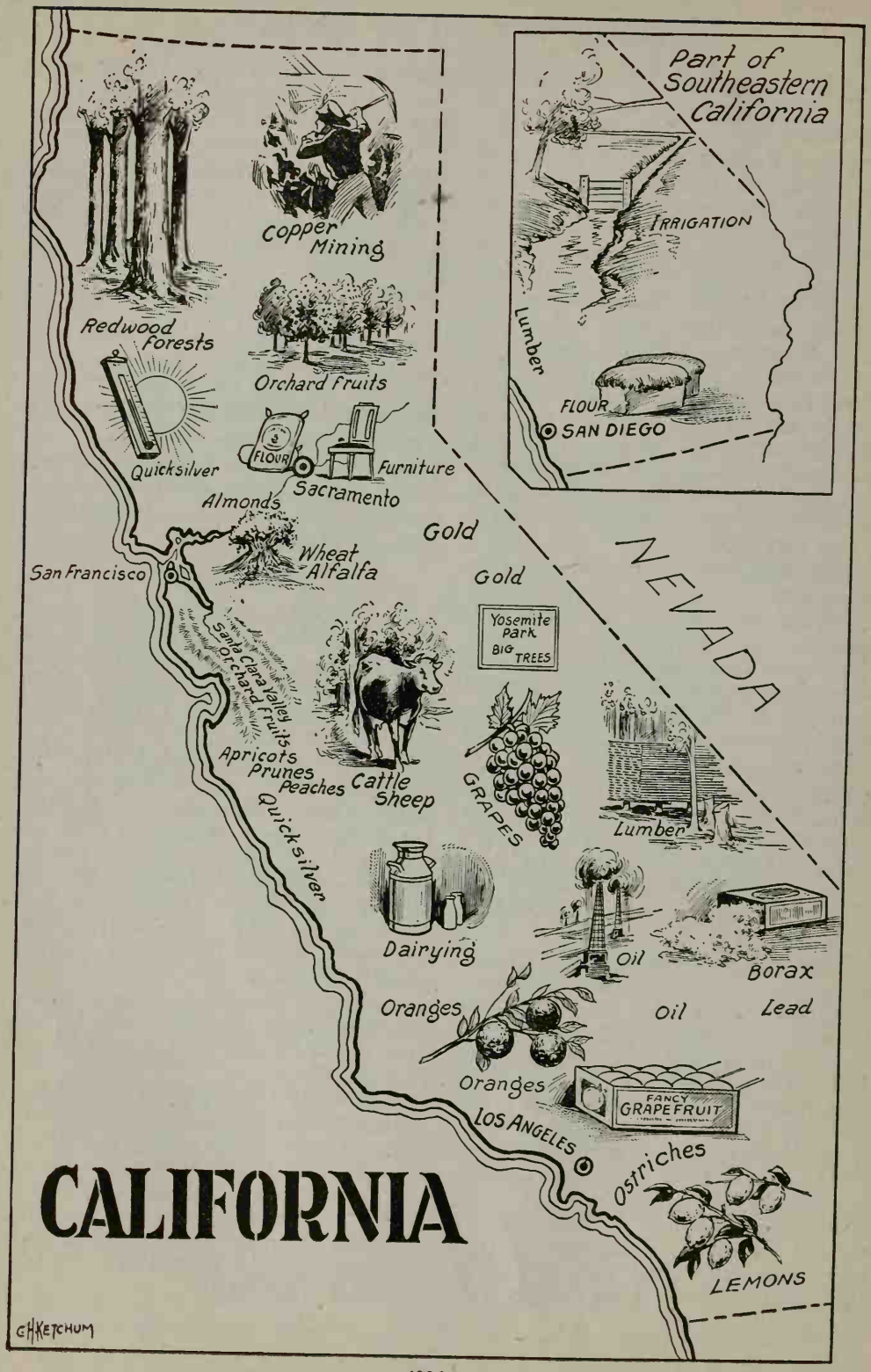
The Oregon Cession comprised a total area of 249,714 sq. miles. That is less than the area of Texas. Why was that territory divided into three states but Texas remained as one? (Study graphic discussion of Texas.)

Studying the graphic of these two states, we detect common features, also different ones. We notice extra fine timber in the western sections of each, extending into California. Give reasons explanatory of this. In each state the section west of the Cascade Range was glaciated (generally speaking). Why not the eastern half? (Upon what do glaciers depend?)

Study the formation of coal (631). Can you suggest any reason why in each state coal beds are located west of the Cascade Range?

Coal near Olympia is anthracite. Mount Ranier National Park is in the same locality. What connection, if any, between these facts? Give your reasons.

Yakima County, Washington, is not only a great fruit section, but produces all kinds of crops. Is this fertility due to climate or soil? (Consider every factor before replying.)


Part of Southeastern California
IRRIGATION
Lumber
FLOUR
SAN DIEGO
Copper Mining
Redwood Forests
Orchard Fruits
Quicksilver
FLOUR
Furniture
Sacramento
Almonds
Wheat Alfalfa
San Francisco
Gold
Gold
NEVADA
Yosemite Park
BIG TREES
Santa Clara Valley Orchard Fruits
Apricots
Prunes
Peaches
Cattle
Sheep
GRAPES
Lumber
Quicksilver
Dairying
Oil
Borax
Oranges
Oil
Lead
Oranges
FANCY GRAPEFRUIT
LOS ANGELES
Ostriches
LEMONS
CALIFORNIA
G.H.KETCHUM

California

(State article, 450)

Location.—California fronts the Pacific Ocean with a coast line of approximately 1,000 miles, challenging all hostile approach to our shore, welcoming all bent on a peaceful mission to a most wonderful land-locked harbor behind the Golden Gate. It is by far the most important state,—the western border, the golden crown of the Mexican Cession (see map), wherein fate atones with a lavish wealth of charm for the semi-desert sterility of the states bordering to the east.

Area and Population.—It is the second largest state in the Union, its area being 158,297 sq. miles; nearly as large as all of New England, New York and Pennsylvania combined. Its population is only a fraction of what the state is capable of supporting, being slightly less than 22 to the sq. mile in 1920, but probably no state is growing more rapidly in population.

Description.—A careful analysis of the graphic discloses that the center of the state is a valley with forest-clad, mineral-bearing mountains along much of the eastern border. Notice the lumber, the copper and the gold. A lower lying range fronts the Pacific for notice the lumber, quicksilver and the compact shore leaving comparatively few good harbors. The timber represented contains the most impressive trees in the world. The redwood forests in the northwest, extending down the coast to south of San Francisco, are fully described elsewhere (451). The giant tree-forms of all are found in the vicinity of Yosemite Park. (See Geographical Excursions.)

The Valleys.—There are numerous sub-valleys in addition to the great central valley, and all these valleys are worthy of separate mention, for they are of great fertility,—a section where vineyards and orchards, orange groves and lemon groves, and everywhere a wealth of flowers,—vie with fields and gardens, where are growing amazing crops of all descriptions. The scenic charms of the surroundings cannot be surpassed. Distant peaks, white with snow; limpid streams, debouching from canyon gorges, with perhaps the gleam of the mighty Pacific in the distance.

Sacramento Valley.—The valley of the Sacramento River is the northern part of the central valley. The city is central to a great area of fertile land; it is the center also of a vast fruit industry. To the north, the east and the west are beautiful sub-valleys, and the great industry of all is fruit raising.

The San Joaquin Valley.—The valley of the San Joaquin is the central part of the central valley, sloping north. This is a rich agricultural valley needing the assistance of irrigation. Notice wheat, alfalfa and dairying. Santa Clara Valley to the west, shut in by mountains, touching an arm of the bay on the north, is celebrated for its wealth of fruit.

Southern California.—From the graphic or produce map of the state we decide that California is a land of most diverse products. It is a land of flowers and sunshine and singing birds; of gold and silver and oil, of garden and field crops and all manner of fruit in the greatest abundance. It is a land of sandy beaches and of mountain resorts; eternal snow on the mountains, eternal summer in the valley.

Questions

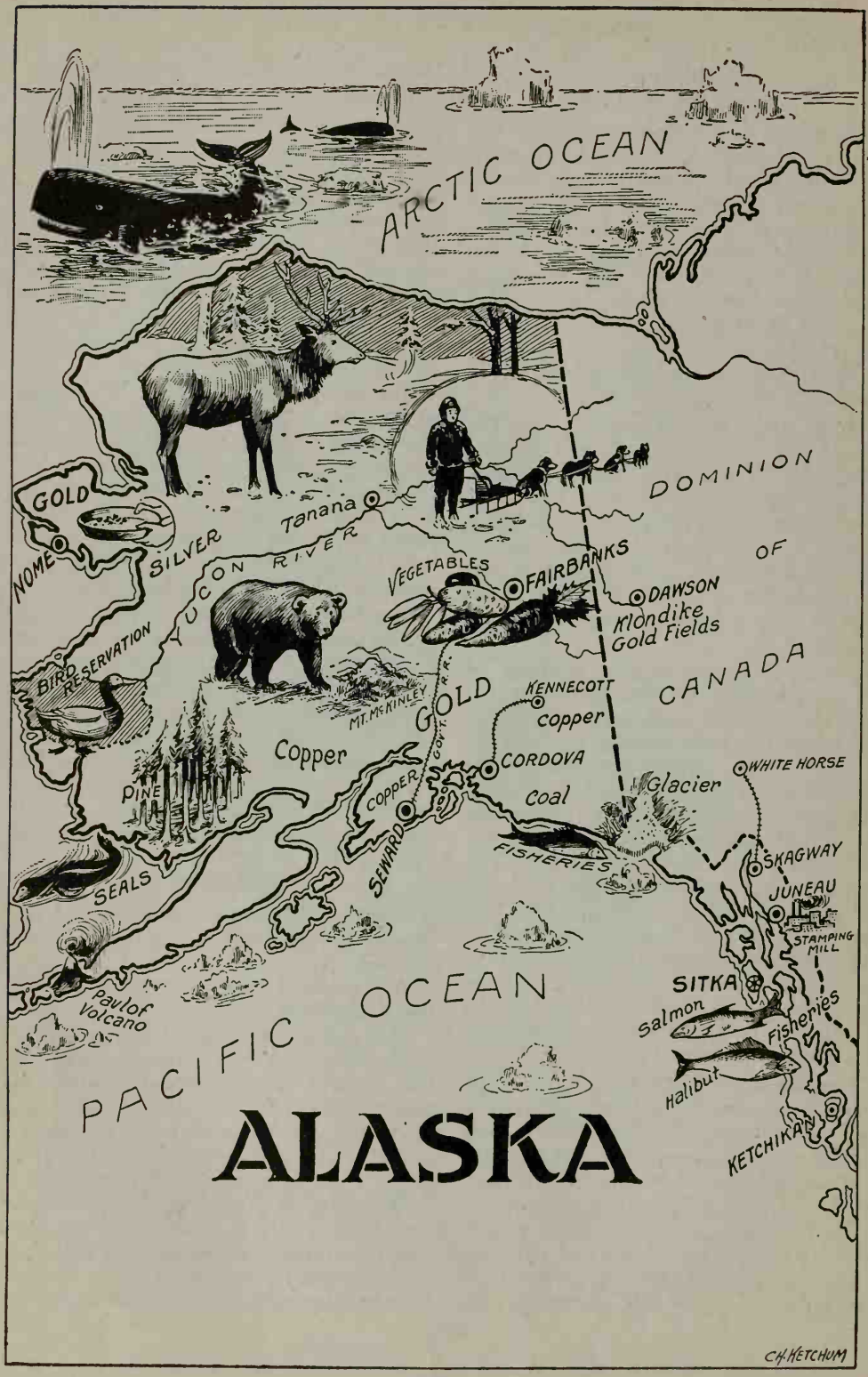
Mention the states, wholly or for the greater part formed out of the Mexican Cession.

Are the coal deposits east or west of the Rocky Mountains?

Many of the big trees of California exceed thirty feet in diameter. Step off that distance on the sidewalk and try to mentally see a tree of such a size.

On the graphic such trees are represented in Yosemite Park. Describe that park. (See Geographical Excursions.)

If California were moved due east to the Atlantic coast it would be too far north to raise oranges, lemons and the semi-tropical fruits. What makes it possible to raise such fruits in California?


ARCTIC OCEAN
GOLD
NOME
SILVER
Tanana
YUCON RIVER
DOMINION
OF
CANADA
VEGETABLES
FAIRBANKS
DAWSON
Klondike
Gold Fields
BIRD
RESERVATION
MT. McKINLEY
GOLD
KENNECOTT
copper
Copper
CORDOVA
Coal
COPPER
SEWARD
PINE
Glacier
WHITE HORSE
FISHERIES
SEALS
SKAGWAY
JUNEAU
STAMPING
MILL
SITKA
Salmon
Fisheries
Halibut
KETCHIKAN
Pavlof
Volcano
PACIFIC
OCEAN
ALASKA
CH. KETCHUM

Alaska

(See article, 50)

Location.—Alaska is our new Northwest Territory, far more extensive than the Northwest Territory with which our history begins. Like that territory, it guards the approach to our mid-continent expanse, since it faces Asia across a narrow strait. Many think of Alaska as a land of mountains, glacial ice and Eskimos. They forget that, as a whole, it is in the same latitude as Norway, Sweden and Finland, and is as capable of supporting a large population.

Resources.—It has not only a belt of agricultural land along the Pacific coast, but possesses a vast central plain, drained by one of the great rivers of the earth, with many sub-valleys in which the hardier vegetables, grains and forage crop can be grown. Its mountain ranges are forest-clad and mineral-bearing. There are vast deposits of coal, copper, and the only tin mines in the United States. It is rich in gold deposits and placer mines. Only a beginning has been made in its production of gold. The time will come when prosperous towns,—the sites of busy smelters, paper and lumber mills,—will be located up and down the valleys; and the increased population will be supported with ease by the agricultural products there grown.

Wealth from the Sea.—Along its shores are the richest fishing grounds in the world. Every year ships and fishermen, canneries and canners are busy along the Pacific coast from Sitka to St. Michael. Vast quantities of cod, herring, salmon and sardines are prepared for export. There are herds of fur-bearing seals on its islands; along the Arctic coast is the one remaining whaling ground in the world.

Scenic Features.—It is the only section in the United States where glaciers and their progeny, icebergs, and flaming volcanoes are near neighbors; the only section of our country where the midnight sun shines on a sleeping world, and the only section where the scenes of Lapland are repeated and reindeer and dogsleds are used to transport mails and articles of commerce. Some of the sublimest scenery of the world greets the tourist. Nor is the surface of the country a dreary waste. Seventy-five varieties of wild flowers are found in the Yukon Valley, and in season the snows have scarcely disappeared ere they carpet the earth. Small berries and bush fruit grow wild in profusion.

Such is present-day Alaska,—a nation in the making, in area one-sixth as large as continental United States, with but a meager population of 54,879. Its career is just opening; with government aid its railroad building age has begun. The purchase of Alaska in 1867 was the occasion for a sarcastic repetition of the jeers that greeted the Louisiana Purchase and the Mexican Cession. It is now apparent that, like them, it was the purchase of a diamond in the rough, the extraordinary value of which is just becoming known.

Questions

Mention other countries where tin is produced (2892).

Study Norway, Sweden and Finland (2063, 2799, 1066), and compare with Alaska as to products, lumber, tillable land, etc. How do they compare in area?

What domestic animal is found in Alaska and Lapland?

Is a whale a fish? (3112).

An active volcano is represented on the graphic. Are there any others in the United States? (1284).

Do you know of any recent outbreak in a western state? (Read carefully Yellowstone Park in Geographical Excursions.)

What is there of interest about Mount McKinley? (1736).

Describe the animal represented in the center of the graphic (262).

What is the relation between an iceberg and a glacier? (1409).

Are there any other glaciers in the United States? (1175).

SOME HISTORY FEATURES IN THE HOME AND SCHOOL REFERENCE WORK

THE HOME AND SCHOOL REFERENCE WORK is particularly strong in the Department of History. There are several special features that will readily appeal to the reader.

1. It contains a Compendium of the World's History arranged in parallel columns showing contemporaneous events.
2. It contains a synoptical analysis of the history of the United States arranged in parallel columns showing contemporaneous events, together with a column devoted to foreign events.
3. It contains a number of color plates presenting pictorially the events of the administrations.
4. It contains biographical sketches of important historical personages, special attention being devoted to the biographies of eminent Americans.
5. It contains historical sketches of the states of the United States, and of the larger cities.
6. It contains historical sketches of foreign countries and cities.

I. The Compendium of the World's History

"I get all mixed up in regard to the chronological order of the events in medieval and modern history," said a bright high-school boy to his teacher one day. "On page 275 the end of the Hundred Years' War between France and England is given, and on page 297, it tells how Hugh Capet founded a new French dynasty in 987, and I can't help thinking that Hugh Capet came after the Hundred Years' War, although he lived nearly 500 years before that war came to a close."

The boy who so pointedly called attention to his difficulty in studying history no doubt voiced the experience of many students, for it is a fact that, due largely to the way textbooks are written, the work in history too often leaves in the minds of the students a mass of unrelated facts and erroneous impressions.

PLAN FOR TEACHING UNITED STATES HISTORY

I. Reasons for Studying History

1. History is the science of the life of man and his activity as a social being. It describes the conditions and institutions of the present time, and explains how these institutions grew out of those of the past.
2. History depicts the deeds, actions, occurrences and events which emanate from men and which in turn react on men.
3. History sets forth the desires, plans and needs of mankind.
4. History places the student in a position to compare the efforts of the present with the purposes and aspirations of previous periods.
5. History furnishes that information and power which enable us to think intelligently about the questions and problems of today, and to forecast, at least in a measure, the future life of our country and state.
6. History presents many great characters that are examples of ideal manhood, to which children not only look up with a feeling akin to awe and veneration, but also with a longing and hope that they may grow to be like these great men and women; thus history becomes an important educative force in character building.
7. History inspires right emotions and true patriotism.
8. History strengthens the pupil in his belief that in spite of possible present appearances the good and the right can not be annihilated but will eventually prevail.
9. History leads the pupil to place community interests above self-interests and to appreciate the worthy aspirations of the community, the state and the nation in which, before long, he is to be an active and responsible member.
10. History exercises the memory, imagination, judgment and reasoning. It develops the will and creates a desire to strive for the good, the true and the right.
11. History is taught not especially because of its practical value, but because of its cultural value.
12. History is the teacher of mankind.

II. Method of Teaching History

1. Preparation for the New Unit
   - (a) Statement of the aim
   - (b) How to secure the related known
   - (c) Summaries by the teacher
2. Acquisition of the New Knowledge
   - (a) The study of history is an application of reading
   - (b) Pupils should be helped in the study of the textbook
   - (c) Reading by the pupils
   - (d) Presentations by the teacher
3. Independent Study by the Pupils
   - (a) Lesson to be studied in class or at home
   - (b) Subject matter to be talked through at home
4. Topical Recitation in Class
   - (a) Recitations in class
   - (b) Questions by the teacher
5. Critical Study of a Unit
   - (a) Facts in history to serve as a basis for judgments
   - (b) How errors of judgment should be treated
   - (c) Opinions should not be forced on the class
   - (d) Ethical truths to be applied to daily life
6. The Final Summary
   - (a) The fundamental things in the history of our country should be remembered for life
   - (b) The final summary in class
7. How Historical Knowledge may be Utilized in Written Composition
   - (a) How subject matter may be used
   - (b) Pupils to reflect on what they read

III. Some Other Factors in Studying and Teaching History

1. Collateral Reading
   (a) Purposes
   (b) Kinds of books to be used
   (c) Assignment of special topics
2. Civil Government
   (a) Civil government not to be disassociated from history
   (b) Local government in connection with the study of the colonies
3. The Use of Maps
   (a) Maps to be freely used
   (b) Other things to make the study of history objective
4. Dates
   (a) Table of dates to be prepared by the teacher
   (b) Drill on dates
5. Correlate with World's History

IV. Illustrative Exercises

1. United States History
2. The History of Virginia
3. The Administration of Andrew Jackson
4. Outline History of Civilization
5. Outline of the Races of Men

A METHOD OF TEACHING UNITED STATES HISTORY

Preparation for the New Unit. Intelligent and wise instruction in history presupposes on the part of the instructor a full and definite knowledge of the subject matter and a definite aim and method of teaching.

Statement of the Aim. In approaching a new subject, it would be well for the teacher to enter into a preliminary discussion with the pupils. The teacher should state briefly the purpose of the lesson in such a way that the interest and expectation of the pupils are aroused, and their attention is willingly given to the new lesson. The statement of the aim makes clear the goal to be reached.

How to Secure the Related Known. In this preliminary preparation, the teacher should call up in the minds of the pupils, facts already known and which have a bearing on the new. This would, as a rule, simply mean a review of work previously studied. If, however, the new topic or chapter is only remotely related to the preceding one, or to anything previously studied, it will be necessary to search the general experience of the pupils to get a related known upon which to base the new. It may even be necessary for the teacher to furnish the points of historical attachment by a brief talk.

Summaries by the Teacher. Sometimes it may be advisable for the teacher to summarize the new unit or units. Take, for example, the unit, "How the long quarrel between the English and Spaniards ended in a victory for the English." This topic is a very broad one. It practically includes the history of one of the most momentous periods of general history. Limited to a very narrow space, the historian can do little more than sketch a very general picture. It is within the province of the teacher to make learning interesting, and thus easy. By studying the bare outlines of the book, pupils will get rather hazy ideas of this great period. In the hands of the skillful teacher, the oral presentation of the entire subject will enable pupils to get a correct bird's-eye view of it, and thus put them into the best possible attitude to study and understand their textbook.

Acquisition of the New Knowledge. In the acquisition of the new knowledge, the teacher should bear in mind that pupils must be encouraged to exercise their self-activity in the study of the text. The study of history, or of any knowledge subject, is simply an application of the power to read. The textbook should be made the center of instruction. It should be read and studied by the pupils.

Pupils Should be Helped in the Study of the Text. But in living up to this high ideal of self-activity on the part of the pupils, it is well for the teacher to

remember that too much should not be demanded of the children in the elementary schools. American history is not an easy subject to master, especially when the national period is reached. It deals with the political, economic and social conditions of our people. The full bearing of certain subjects cannot be understood without previous knowledge and life experiences which are, in a measure, precluded by the immaturity of the pupils in the elementary school.

Reading by the Pupils. There are various ways in which the pupils may be introduced to the new unit in history. On the whole, it may be best to have the class read a topic silently in class, or some one pupil may be called on to read a topic orally while the other members of the class read the same topic silently.

After the reading of the topic some pupil should be required to reproduce what has been read, in his own words. Naturally, this first reproduction will be faulty and incomplete, but it will represent what the pupil can do as a result of a first reading; hence it is in harmony with the general purpose of reading. In addition to this, it reveals to the teacher the things the pupils do not understand fully and which she must touch upon in the study recitation.

Presentations by the Teacher. The first rough reproduction of the thought should be followed by a study of the part of the unit under discussion. The books should be open and the teacher should, by means of questions and brief directions, get the pupils to reflect on what was read and thus enable them to secure better understanding of the subject matter.

However, the explanations offered by the teacher should be brief. She should not try to supplant the book, but to supplement it. Occasionally she may present an entire subject and thus become the center of instruction, but as a rule she should limit herself to one-minute talks which will throw light on difficult parts of the subject, and thus enable the pupils to study the book to better advantage.

The teacher should make it an object to select the essential things in a lesson, and center the attention upon them. When these essentials are grasped, additions may be made to them by means of more extensive reading, and thus the pupils may secure an enlarged view containing details that lend interest to the subject.

The work thus far indicated may be looked upon as a preparation for a careful study of the text by the pupils. In this preliminary work the teacher presumably has:

1. Given the historical setting for the new.
2. Divided the subject into related units, and assisted the pupils in securing an understanding of what is read.

Independent Study by the Pupils. The pupil is now ready to study the textbook to advantage. This he does during a free period in school or, preferably, at home.

The teacher may also formulate questions on the text which may be placed on the board or be dictated to the class. These the pupils may have in mind in studying the text.

Sometime during the study recitation, the pupils should, under the direction of the teacher, formulate an outline of the unit under consideration and place it on the blackboard.

Whether the pupil studies his lesson at school, or at home, he should be encouraged by the teacher to talk it through at home to an imaginary class. This is an excellent way of fixing knowledge, and it affords fine training in logical thinking and expression.

Topical Recitation in Class. The recitation in class should consist in having pupils talk topically on parts of the unit studied. By their study of a unit the pupils have obtained a more or less organized body of knowledge. They should therefore be permitted to reproduce a whole unit or some integral part

of a unit after their own fashion, without interruption by the teacher.

Rarely should the formal recitation be opened by the asking of questions. To begin by asking questions on the body of facts would be equivalent to tearing asunder what the pupils possibly laboriously succeeded in putting together. But after a pupil has told what he knows of a subject, additions and corrections should be made by other members of the class.

If some essential is omitted, or if pupils labor under misapprehensions as to facts, the teacher by judicious questions and brief talks may make clear what is obscure, and bring the various parts into a logical order.

Critical Study of a Unit. A teacher thoroughly conversant with her subject, and whose personality creates an interest in the study of history, will find little trouble in getting pupils to remember facts. The test comes in having the facts serve as a basis for judgments. No other study furnishes the advantages history does in exercising the power of judgment and reasoning. History concerns itself with the actions of men, with cause and effect. On every page students meet with historic personages placed in situations that call for the exercise of the will. Analyzing these situations and passing judgment on the acts of historical characters are powerful aids in cultivating the ethical judgment, and thus in cultivating character.

Errors of Judgment. But there is an element of weakness that must be guarded against. Children in the seventh and eighth grades are immature. They lack life experiences, hence will often err in their judgments concerning the rightness and wrongness of actions. It is here that the tact and skill of the instructor must manifest itself most. Pupils must be led to think for themselves, and give expression to their own judgments freely and unreservedly.

But how are errors of judgment to be treated? Suppose pupils go counter to a universally accepted judgment? Usually a corrective can be found in the class itself. Children like to argue. There is also an understratum of fairness that can be banked on. There are always two sides to a question. With a little skill and tact, fruitful discussions on the right and wrong of a particular action may be brought about, in which many members of the class will participate. To lend zest to the discussion, the class may be invited to serve in the capacity of a jury to render a final verdict. It is true that in some cases this verdict may be contrary to accepted crystallizations of judgments. In isolated cases it may be necessary for the teacher to point out to individuals, or to the class, that the error of judgment was due to insufficient data, or that judgment was passed after too little reflection.

Opinions Should not be Forced on the Class. However, the teacher should never, in a dogmatic way, attempt to force her opinion on the class. If history is to assist in character building, ethical judgments should be reached in a natural way; they should constitute, as far as possible, the product of the pupils' free and independent thought. The greatest effort of the teacher will then be directed to putting pupils in a position where they live and feel with the people of a given time. She must assist them in getting behind the words of the book, and becoming interested observers of the time described. It is then that they will be in possession of the principal factor necessary for safe and correct judgments.

Ethical Truths Applied to Daily Life. The ethical truths which are secured by the critical study of history should not only result in having the pupils respect the noble and good which we have inherited from our forefathers, but it should furnish them with a body of principles of conduct and action. The pupil should form a habit of testing his own actions by these principles.

The study of history may not result in the pupil's getting grand thoughts, but it must result in his acquiring sound and valuable ones, which will affect his daily

life and lead him to aim at higher ideals. It is in this way that history fulfills its highest purpose in developing good citizenship.

The Final Summary. How much of a given course in history should pupils remember? This is a question that is often asked and discussed. Many of the facts will necessarily be forgotten within a short time after pupils leave school, unless the reading of history is continued, but the fundamental things in the history of our country should be remembered for life by every boy and girl. These constitute the skeleton which may be reclothed at any time by private reading. Most children, it is claimed, when grown up, never get any history beyond what they acquired in school. If this is true, it constitutes an additional reason for making the final goal in the study of any large unit, the ability of the pupil to summarize the subject so as to fix the essential things in his memory.

However, one of the most difficult things of achievement in teaching history is to get pupils to summarize a broad subject. It is easy for them to tell all they know; it is much harder to rise above the enumeration of details and state only essentials, and yet when a large topic is studied the final work consists in giving a brief summary of it. With a complete analysis of the topic before the class, the teacher should summarize one or two units to enable pupils to get the proper perspective. Some drill may be given on the analysis of the unit. When pupils are able to picture in their imagination the topics and subtopics, they are prepared for the final home study. The necessity for talking through the entire unit in a given time, as a preparation for the recitation in class, should be impressed upon pupils. As the work in history progresses, these brief résumés very properly form a part of the regular recitation.

How Historical Knowledge May Be Utilized in Written Composition. School histories have improved wonderfully during the past few decades. They are no longer dry compendiums of unrelated facts to be committed to memory by pupils. The books now appeal to the reason and understanding. The language is usually simple, clear and forceful. The teacher, with right, should insist on recitations perfect as to facts, and as nearly perfect as to language as the stage of advancement of the pupils will make possible.

Using Subject Matter. When a topic has been studied in class, and pupils have recited orally on it, the subject matter may be used in various ways:

1. There may be frequent, if possible, daily, written test exercises of five minutes' duration.
2. Pupils may be required to write in detail on some small unit or topic.
3. They may be asked to summarize a topic consisting of a number of paragraphs.
4. They may summarize a large unit or chapter.
5. They may reproduce brief talks by the teacher.
6. They may compare two periods in history or two historical characters.
7. They may imagine themselves living at the time certain events occurred and describe some phase of an event or occurrence as an eye witness might do.
8. They may answer thought questions based on the subject matter studied.

Pupils to Reflect on What They Read. But in every recitation, especially in the written recitations, pupils should be encouraged to reflect on what they have read. Unless independent thought is stimulated, one of the main purposes in teaching history is ignored. Naturally, as a result of the study of each new unit, the pupil enlarges his body of historical knowledge, but the securing of a definite amount of knowledge is not the principal goal in the study of history. The main thing, after all, is the awakening of interest in history, developing historical judgment and applying ethical truths to daily life.

SOME OTHER FACTORS IN STUDYING AND TEACHING HISTORY

Collateral Reading. If pupils have access to a library they can be led to enlarge upon their textbook in such a way as to get a wealth of details, which will throw light on the bare outlines of the book. This will help to make history more interesting and real.

Kinds of Books to be Used. Difficulty will be experienced in finding suitable supplementary reading for pupils in the seventh and eighth grades. In selecting material it is well to remember that books of spirit and action are always to be preferred to the more philosophic treatises.

To facilitate the collateral reading, and lend definiteness to it, it is suggested that teachers prepare reference lists, indicating topics and pages of larger historical works, biographies and historical novels contained in the school or the city library.

Assignment of Special Topics. Special topics should be assigned to pupils in such a way that they are ready to report on them in class at the time the class is studying the subject to which the special topic applies. In this way the pupil will be made to feel that he brings something new to the class, at a time when the new is most appreciated. In order that the pupil's presentation may be effective, the teacher should require the pupils to make careful preparation. The pupil must have his subject matter well in hand, so that he may, in the course of a five- or ten-minute talk, have no difficulty in holding the attention of his fellow students.

Civil Government. When the Virginia and Massachusetts Bay colonies are studied, the question of what to teach of town and county government will arise. One of two courses is open. Either civil government must be ignored entirely, or some little time must be taken to make clear the few essentials of government necessary to an intelligent study of the colonies.

Not to be Disassociated from History. Civil government in the grammar school should rarely be disassociated from history. There is an intimate connection between the two that cannot well be ignored. Elementary notions of civil government, too, should be given as early as the seventh and eighth grades, for the reason that many pupils leave school from these grades, and, unless the fundamental notions of our government are imparted thus early, a large body of our youths will grow to manhood sadly unfit to exercise the prerogatives of citizenship.

Local Government in Connection with the Study of the Colonies. But the teacher should not err in another direction. It must be borne in mind that no exhaustive study of this subject should be attempted. In connection with the Virginia and Massachusetts colonies, it is suggested that pupils be led to discover certain tangible facts of government which may form the basis for brief talks by the teacher. These facts, relating to town, county, state and national government, and also to the government of England, will come up again and again in colonial history. There should appear in all of this work a conscious effort to make clear that our institutions rest on a representative basis, that the people govern, and that a so-called government is simply an aggregation of individuals to whom is delegated, for a time, the "business of carrying on the government." By ever keeping this fundamental thought in mind, the wise teacher will steer clear of the intricacies of civil government, and avoid a too-early discussion of difficult governmental questions. When the national period is reached, a brief review of town, county, state and national government may profitably be given.

The broader questions of our National Government can be studied in connection with historical questions of which they really form a part, leaving for the high school the critical study of our Constitution and the nature and origin of our governmental institutions.

The Use of Maps. According to an old English saying, "Time and place are the eyes of history." Never should a history lesson be studied or recited without referring to maps. The maps may be the regular wall maps, maps contained in the textbook, or special maps prepared by the teacher or pupils. Maps should often be made the basis of historical discussions. They are indispensable, especially where the development of the historical unit is dependent on geographical conditions.

Besides maps, pictures of landscapes, battle scenes, plans of cities and historical documents should be used to help make the teaching of history as objective as possible.

Dates. A table of dates should be prepared by the teacher. The list should be fairly complete. It should contain the important dates in the history of our country, together with a few dates in European history. The dates which the teacher considers of sufficient importance to be learned by heart should be underscored. By having maps and the table of dates in full view of the class, it will be easy for the teacher and pupils to connect an event with the time and place of its occurrence and thus help to fix it in the memory. A brief drill on dates, places, persons and events should be given every few days. In this way the pupils may easily be kept in touch with the framework of history, and the facts will receive their proper setting.

Correlate with World's History. Since our country can no longer be considered as isolated it would be well to briefly point out the connection between our history and important events in European history. Just as disturbances in Europe affect our history today, so it has been in the past—while not necessary to go into details the broad general lines of connection should be noted.

A METHOD OF TEACHING THE HISTORY OF THE COLONY OF VIRGINIA

Stereotyped methods of instruction should always be avoided. Individuality should characterize method of presentation, drill and testing. On the other hand, it must be admitted that pedagogy suggests methods of procedure which are in harmony with the principles of psychology and common sense and which teachers should not ignore.

No good teacher would teach the same subject the same way twice; hence the method of studying the Colony of Virginia should be looked upon as suggestive only. There are several ways of approaching the study of this colony, as follows:

1. The teacher may ask the pupils to name the permanent settlements that were made on the North American continent prior to 1607, to state briefly who made the settlements and the time they were made, and point out on the map where they were located. This the pupils should be able to do, since it is simply a review of what they had only a short time before taking up the new unit.

2. The teacher may ask the pupils to tell briefly of the ill-fated English colony on Roanoke Island, and other unsuccessful attempts to make settlements by Raleigh, the father of English settlement in America. This also belongs to what the pupils know, and calls to mind the hardships the poor colonists experienced in trying to build homes for themselves on the new continent, 3000 miles from England, which could be reached only by a sea voyage of months in duration.

3. The teacher may discuss with the pupils how the destruction of the Spanish Armada marks the opening event in the history of the United States. In this way the teacher should call up in the minds of the pupils facts they already know, or which they ought to know, that are related to the subject they are about to study and which serve as a preparation for studying the new.

In the presentation of the new, several plans may be followed:

1. The teacher may very briefly summarize the history of the Colony of Virginia.

2. She may ask the pupils to read at school or at home the twelve pages of

the textbook devoted to the Colony of Virginia.

3. She may limit herself to helping the pupils study the topics or the unit by pointing out the essential things to be studied in each, and explaining some of the difficult words and expressions.

A good deal of time should be devoted to a study of the text in class by the teacher and pupils working together. After pupils have read orally or silently a paragraph or a topic, some pupil should be asked to give the substance of what was read. The questions the teacher may ask are of two kinds: (1) simple questions as to facts; (2) thought questions. Both kinds of questions naturally presuppose thinking, but the so-called thought questions are given to encourage pupils to reflect on what they read. A third kind of questions may also be considered; namely, those which call forth ethical judgments.

To secure variety in the method of procedure, it is suggested that:

1. The teacher may ask the questions in class.

2. The teacher may place questions on the blackboard and require pupils to search their textbooks in answering the questions.

3. The teacher may ask the pupils to prepare questions to be submitted to the class.

The particular method of procedure must be left to the teacher to decide. She knows the ability of her pupils and what they know of a subject, and hence can determine the character of the assistance she is to render, and the amount of time to be devoted to the study recitation. However, as a rule it may be said that teachers are apt to reach the formal assignment of the lesson before the pupils are in a position to study the new to advantage.

The work on the Colony of Virginia is divided into days. This is done not with the idea that the teacher is expected to hold strictly to the arrangement, because as a rule that would be impossible, but because by means of this plan the general method of procedure from day to day can best be presented.

First Day. For the study recitation the following suggestions are given:

1. The teacher should discuss briefly some of the ill-fated attempts by the English to make settlements in the New World. Maps should be in full view and be referred to whenever necessary.

2. The study of the new lesson may begin by having the teacher state the aim: Today we shall learn how two companies were organized in England to make settlements in America, and how the first settlement was made at Jamestown.

3. A pupil should then be called on to read the first topic, "Two Companies Organized," orally. Naturally, a good reader will be selected for this purpose, to the end that the pupils in the class may get the new both by silent reading and by listening to the oral reading.

4. Some pupil should then be asked to give the thought of this first topic.

5. Then the pupils are ready to enter into a thought analysis of the topic. Questions like the following may be considered:

Show on an outline map of North America the grants of land the King made to the London and Plymouth companies. What is meant by a charter? Did the French have a right to settle at Port Royal? Why? Why should this settlement lead to quarrels between the English and the French? How far was Port Royal from Jamestown? How did it happen that most of the settlers were adventurers? Why was the site of Jamestown unsatisfactory? Why did the system of working the land in common not succeed?

6. The teacher should then have the pupils suggest subheads for the two topics so that the topical analysis will read somewhat as follows:

The Colony of Virginia

I. Two Companies Organized

1. The London and Plymouth companies and grants

2. The King ignores claims of other European countries
3. Popular interest in colonization aroused by extravagant tales

II. The Founding of Jamestown

1. The first colonists
2. Jamestown
   (a) The place chosen for the settlement
   (b) The land worked in common and the result

The teacher is now ready to make the formal assignment, which will be as follows: For tomorrow you should be ready to recite topically on the first two topics. Use your outlines in preparing your lesson, and talk each topic through to an imaginary class as a final step in your preparation.

Second Day. In the formal recitation on the assigned lesson, the pupils should be called on to tell:

1. How the London and Plymouth companies were organized, and the grants made to them. (The pupil reporting on this subtopic should locate the grants on a map of North America.)
2. How the King ignored the rights of other European countries.
3. How extravagant tales aroused a popular interest in colonization.
4. How the first colonists were poorly equipped for work in the wilderness.
5. How Jamestown was founded.

Naturally, if there are misconceptions in regard to subject matter, these must be cleared up by the teacher and by additional study on the part of the pupils.

The New Lesson

Captain John Smith. Fortunately for the colony, it had one wise, brave, energetic and public-spirited man, Captain John Smith. But for him, matters might have been infinitely worse. At first his fellow colonists did not relish his desire to manage everything, and threw him into prison; but after a time they set him free, and for two years he was their real leader. Smith declared that "he that will not work shall not eat," and obliged all the settlers to take a hand in doing things, whether they liked it or not. He superintended the improvement of the fort and the building of several good log houses, drilled the little garrison, explored the neighboring country and made maps of it, often wrote to the Company in London for aid, and traded with the Indians for food.

On one of these trading expeditions the neighboring Indian Chief, Powhatan, made him a prisoner. Smith afterward reported that he was snatched from death only through the kindness of that chief's daughter, Pocahontas. It was Smith alone who, through his energy and ability, saved the people from the fate that overtook the previous colony at Roanoke.

The Starving Time. The London Company grumbled at Smith, because he did not send home gold to them. He replied that there was no gold to be had, but that farming and fur trading would make the colonists rich if they would only work. Further, he told them that they ought no longer to send "gentlemen" and other useless folk to America, but men who could use farmers' and laborers' tools — a bit of good advice which the Company was slow to follow.

Having been injured in an accident, Captain Smith was obliged to return to England in the autumn of 1609. Then came what is called in history the "starving time." The people had been too lazy to build enough houses to live in, there were sickness, famine, and angry disputes, and finally utter despair. Of the five hundred people left by Smith, only sixty were alive the following spring. Just as the miserable survivors had concluded to abandon Jamestown, three vessels commanded by the newly appointed Governor, Lord Delaware, arrived with more immigrants, chiefly mechanics and soldiers, and fresh supplies. The colonists decided to remain, and Virginia was saved.

Individual Ownership. Lord Delaware remained at Jamestown for a year, but was unable to restore order. He was succeeded by Sir Thomas Dale, a stern and hardy soldier, who severely punished all wrongdoers. If a man even grumbled or failed to go to church, he was liable to have Dale's constables after him. This was harsh government, but it succeeded with the kind of people then in the colony. He gave several acres of land to each settler to cultivate for himself. Afterward, the London Company gave them fifty acres apiece. This system of private ownership proved to be much better than the old community plan, for now each must starve or prosper according to his industry or ability in working his own piece of land. After this the colonists became content, idleness ceased, and crime diminished, and a better class of immigrants were encouraged to come over from England.

The Study Recitation on the New Lesson. 1. The teacher should state the aim somewhat as follows: Today we shall learn how John Smith saved the colony from sharing the fate of the colony on Roanoke Island; how, while he was absent in England, several hundred settlers died; and how the introduction of individual ownership of land brought prosperity to the colony.

2. A pupil should then be called on to read the topic or topics which constitute the new lesson, this to be followed by a rough summary of each.

3. The pupils are then ready for the thought analysis suggested by the following questions:

How did John Smith restore order in the colony? How did he save the colony from ruin? What was the immediate cause of the starving time? What induced the "miserable survivors" to stay at Jamestown? How did Dale restore order in the colony? What do you think of his methods? How did private ownership of land help to make the colonists happy and contented?

4. After the discussion of questions like the above the teacher and pupils should work out a topical analysis of the subject somewhat as follows:

III. John Smith Saves the Colony from Ruin
  1. How he forced the "gentlemen" to work
  2. Improvements made by him
  3. How he was saved from death by Pocahontas

IV. The Starving Time
  1. Why the London Company criticized Smith
  2. Smith returns to England because of an accident
  3. The starving time
  4. Lord Delaware induces the colonists to remain

V. Individual Ownership of Land
  1. Governor Dale's reforms
  2. Effect of private ownership of land

Pupils should be told by the teacher that for the next day they will be required to talk topically on the subtopics, "Captain John Smith," "The Starving Time" and "Individual Ownership."

Third Day. The formal recitation should be largely topical in character. The teacher may ask pupils to talk on the subtopics that were assigned the previous day or she may ask questions that call for recitations on smaller units than the subtopics, such as:

1. Tell how John Smith forced the "gentlemen" colonists to work.
2. Tell how John Smith made improvements in Jamestown.
3. Tell of his capture by the Indians.
4. Tell what happened to the colony while Smith was in England.
5. Tell about the new governor, Lord Delaware.
6. Tell how Sir Thomas Dale restored order in the colony.
7. Tell what effect private ownership of land had on the colonists.

The New Lesson

Tobacco Raising. The habit of using tobacco, which Raleigh had introduced into England, had become very popular.

Not until they had been in America five years, however, did the Virginians seek to cultivate it themselves. There at once sprung up so great a demand for the crop in England that within a few years the settlers were raising scarcely anything else; even the streets of Jamestown were for a time largely given up to this purpose. From that time on, through the whole colonial period, tobacco was Virginia's chief crop. Indeed, certificates that were good for certain amounts of tobacco were used like money, and wages were paid in them,—even the salaries of ministers and the fees of lawyers and doctors. Nearly everything that was sold was reckoned in pounds of tobacco.

There were three important results of this new industry in Virginia:

(a) The colony grew rapidly in population, for large numbers of well-to-do people and industrious working folk came over from England to become tobacco planters.

(b) Large plantations were formed. The Virginians soon learned that raising tobacco over and over again on the same land is injurious to the soil; and the planters had either to get new farms from time to time or to buy such large tracts that they could let some of it wear out and yet have fresh lands left. These great plantations stretched along the broad and winding rivers of Virginia, the houses of the owners often being situated many miles apart from one another. To the private wharves of these riverside plantations, came the small ocean-going vessels of that day, bringing to the planter manufactured goods and other supplies from England, which were exchanged for cargoes of tobacco.

(c) Slavery was established.

Slavery. Seven years after the tobacco crop was introduced, negro slaves were brought over to Virginia from Africa; they were the first seen in America. The greater part of the hard work on Virginia farms had thus far been done by "indentured white servants," who were really slaves. Most of these unfortunate people were English criminals, who had been sentenced to hard labor in America for a certain number of years; many others were gypsies, vagabonds of every sort, or poor orphan children, all of whom had been captured in English towns by "press gangs" and carried off to labor for the tobacco-raising planters in "Earth's only Paradise," as a poet of the day called America. There was, however, another class of indentured servants — worthy people who had sold themselves into this sort of slavery for several years, in order to pay for their passage to America, or for debts incurred in the old country.

But many planters thought that better service in the tobacco fields might be had from black slaves, who were accustomed to work in a hot climate. It must be remembered that in those days not many white people saw any wrong in making slaves out of the heathen blacks; indeed most European nations had had such slaves for centuries. Gradually the business of importing negroes to Virginia increased to such an extent that fewer and fewer indentured white servants were needed.

Study Recitation. The teacher should state the aim of the new lesson somewhat as follows: Today we shall learn how the cultivation of tobacco became the leading industry of the colony, and how this industry led to the introduction of slavery.

With books open, the teacher and pupils should study the new lesson. The teacher may have a pupil read each successive paragraph or topic and then have some other pupil give a rough summary of it, this to be followed by a thought analysis of the lesson, or she may introduce the thought analysis after the reading of each topic.

Questions like the following may be considered:

Explain what was meant by "indentured white servants." What prompted the settlers to buy negro slaves? A Dutch captain brought the first negroes to Virginia. Was he to blame for introducing slavery? Did the colonists

think they did wrong in buying negro slaves? Why? How did the cultivation of tobacco induce a better class of people to come to Virginia? How did tobacco raising lead to the formation of large plantations? Describe the trade between Virginia and England.

After the thought analysis the topical analysis should be secured, somewhat as follows:

VI. Tobacco Raising

1. How the use of tobacco was introduced into England
2. Raising tobacco becomes a great industry
3. Results of this industry
   (a) A better class of settlers came from England
   (b) Large plantations were formed
   (c) Slavery was established

VII. Slavery Introduced

1. Indentured white servants do most of the work
2. Negro slaves introduced in 1619

As a formal assignment for the next day, the pupils should be required to review briefly all the topics thus far studied on the Colony of Virginia, to the end that they may recite topically on any or all of them. Particular attention should be devoted to the new topics; namely, "Tobacco Raising" and "Slavery."

Fourth Day. The teacher should require pupils to recite topically on the subject matter thus far studied. In order that as many pupils as possible may get a chance to recite, the teacher may subdivide topics.

The New Lesson

A Representative Assembly. During the first twelve years the governor and council of Virginia were appointed by the Company, and these officers had everything pretty much their own way. But the colonists had long been accustomed in the motherland to local government by men of their own choosing. They thought that they ought to have this same privilege in America—the liberty which their forefathers in England had won by many a hard-fought battle. In 1619 the Company yielded to their wishes, declaring that after this the Virginians should have a local parliament of their own, "that they might have a hand in the governing of themselves."

Like the English Parliament and our own Congress and state legislatures, it was to consist of two chambers, or houses,—that is, two separate groups of representatives. The council was to be the upper chamber and represent the King, while the people were to have as their own representatives a House of Burgesses, to serve as the lower chamber. The new Parliament met on July 30, 1619, in the choir of the little church at Jamestown, and was the first lawmaking assembly in America. It served as an example to legislatures in other English colonies, as well as a splendid training-school for the statesmen and soldiers of Virginia through colonial, Revolutionary, and statehood days. Among the many patriots famous in our history who have had seats in this great assembly are Patrick Henry and Presidents Washington, Jefferson, Madison, and Monroe.

The formation of this House of Burgesses infused a new spirit into the liberty-loving Virginians and now the colony grew rapidly. Enticed both by the representative form of government and by the fact that every one might buy land of his own, at a low price, men came over from England by the hundreds, so that by 1622, there were fully four thousand people in the settlement.

Importation of Wives. Only a few women had thus far emigrated to the colony. But the London Company were desirous "for the making of the men to feel at home in Virginia;" so they sent over, in the spring of 1619, ninety "young and well recommended maids to become wives." The bachelors of the colony met the vessel at the wharf, and, after each

man had made his choice, he asked the consent of the maid; if she were willing to take him he paid to the ship's officers the cost of her passage. A minister was then found to unite them, and housekeeping at once began. The girls found such good husbands that a few months later other maids came over from England, and during several years there were regular importations of wives.

Virginia Becomes a Royal Colony. Because of bad treatment the Indians had come to dislike the Virginians, so in 1622 they rose against them and killed three hundred. King James was not fond of granting much liberty to his subjects and was glad to make this an excuse to revoke the charter of the London Company. He thereupon took Virginia under his own charge, and it was henceforth known as a "royal colony." The House of Burgesses remained, however; and slowly but surely its members, who nearly always were the best men to be found in Virginia, managed to win still further liberties for the people.

Study Recitation. Statement of the aim: Today we shall learn how self-government was introduced into the colony in 1619, how wives for the settlers were imported, and how Virginia became a royal colony.

The oral reading of the new topics should then be taken up. After the reading of a topic some pupil should be called on to give a summary of the subject matter.

With books open, pupils should then discuss questions like the following:

Why were the colonists not satisfied with the government as provided by the Company? Is representative government fair? Why? Why do the people take a great interest in this kind of government? What training do the people get if they take part in local government? Why is the date July 30, 1619 important in the history of the New World?

Distinguish between the Cavaliers and Roundheads. How did the names originate? What caused many Cavaliers to emigrate to Virginia? Can you defend Berkeley's action in sending the Roundheads out of the colony?

Pupils should then, under the direction of the teacher, formulate a synopsis somewhat as follows:

VIII. A Representative Assembly Granted the Colonists

1. The government the first 12 years
2. Self-government introduced in 1619
   - (a) The two chambers
     - The council
     - The House of Burgesses
   - (b) Some of the effects of the formation of the House of Burgesses
3. Virginia becomes a royal colony but the House of Burgesses remains

As a formal assignment for the next day, the pupils may be told to study the new lesson, referring to the topical analysis as found on the blackboard, to the end that they may be able to speak topically on the subject matter.

Fifth Day. As a test on the assigned lesson, the teacher should have the pupils recite topically on the lesson, but since this is a somewhat difficult topic she may break it up into smaller units and ask pupils to recite on them, as follows:

1. Tell how the colonists secured a local Parliament of their own.

2. Tell of what it consisted and whom the two chambers represented.

3. Where and when did this Parliament meet for the first time, and how did it serve as a training school for statesmen and soldiers?

4. How did the House of Burgesses infuse new life into the colony?

5. Tell how wives were imported for the colonists.

6. Tell how Virginia became a royal colony.

The New Lesson

Cavaliers and Roundheads. A few years after Virginia became a royal colony, there broke out in England a long and fierce civil war between King Charles I, who wished to restrict the liberties of the English people, and his Parliament, who stoutly contended for their rights. The well-to-do classes, called "Cavaliers," fought for the King; the common people, led by Oliver Cromwell were known as "Roundheads," and fought on the side of the Parliament. King Charles was beheaded by Parliament (1649); and for eleven years England was governed as a Republic, called the Commonwealth. The monarchy was restored in 1660 and Parliament placed King Charles II, son of Charles I, upon the throne.

This fierce political quarrel in England extended, of course, to her colonies. The most influential of the Virginians favored the Cavaliers. The Roundheads were unpopular; and when the tyrannical Sir William Berkeley became governor (1642), he ordered them to leave for either Maryland or New England, where they were gladly welcomed. Under the Commonwealth, Berkeley was removed from office, but many Cavaliers emigrated from England to Virginia where they were cordially received. Thus between 1650 and 1670 the population of the colony grew from fifteen thousand to forty thousand.

Bacon's Rebellion. When Charles II became King, he reappointed Governor Berkeley, and then fresh troubles began. The colonists grew very angry over the many attempts of the King and the Governor to interfere with their liberties as Englishmen, and they were quite ready for an outbreak when they could find any excuse for it.

The occasion soon arrived. The savages had commenced to massacre the settlers, who demanded that the Governor send troops against the tribesmen. This Berkeley would not do, for he was privately making a great deal of money by trading with the Indians for furs. Nathaniel Bacon, an honest and courageous young member of the House of Burgesses, and but recently arrived from England, was the leader of those who objected to the Governor's conduct; and in 1676 he raised an independent company of armed colonists to go out and attack the Indians. Berkeley called him a "rebel" for doing this, and ordered that he and his men at once lay down their weapons. Instead of doing that, they first went out and defeated the savages and then marched back to Jamestown, where the Governor and the regular militia were waiting for them behind breastworks. After a sharp fight Bacon's party won the battle, and burned the village. It should be said, however, that Jamestown, having been found unhealthful, had little by little lost its population, so that by this time there were hardly more than forty houses in the place.

Not long after this, Bacon died; and there now being no one left to lead the people, Berkeley revenged himself on the rebels by hanging twenty-three of them and taking the property of the others. When the King heard of this, he was very indignant and ordered the Governor to give up his office and come back to England, saying: "That old fool has hanged more men in that naked country than I have done for the murder of my father." "If we had left him alone," said one of the leading settlers, "he would have hanged half the country." Berkeley died the next year "of a broken heart," so his friends declared; he thought he had merely done his duty and had been wrongfully punished.

Progress of the Colony. There were many dark years for the colonists—as governors came and went, each of them quarreling with the House of Burgesses; as kings sought to extort money from them, or to curb their liberties; as Indian and negro uprisings had to be met and overcome; and as bad seasons now and then brought disaster to the tobacco crop. But it must not be understood that, because these occasional events brought gloom, the life of the colonists was not

without joy; we shall see that there really was, all this while, much prosperity, contentment, and steady growth.

College of William and Mary. One strong evidence of progress was the founding (1693) of the College of William and Mary at Williamsburg, the new capital of the colony, five miles from Jamestown. This, the second college in the United States, became a famous school; within its walls were trained some of the Revolutionary leaders who, many years later, were to free the colonists from the growing burden of English rule.

Study Recitation. Statement of the aim: Today we shall learn how the civil war in England extended to Virginia; how the tyrannical action of Governor Berkeley resulted in what was called Bacon's Rebellion; how the colony prospered in spite of the quarrels between the Governor and the House of Burgesses; and how the College of William and Mary was founded. The teacher should describe briefly the causes and results of the civil war in England and how the political quarrel in England affected the Colony of Virginia.

Pupils should read the topics of the new lesson and give rough summaries of them.

Questions like the following may be considered in the thought analysis:

Describe the so-called Bacon's Rebellion. Was Bacon really a traitor as Berkeley declared he was? Was Bacon justified in burning Jamestown? Did Berkeley have a right to trade with the Indians? Why did Bacon object to this? Can you defend Berkeley's action in hanging twenty-three of the rebels? Berkeley died of a broken heart. Do you sympathize with him? Why? Was the King fair to Berkeley? Why?

What caused some of the dark years for the colonists? Were the colonists interested in education? What makes you think so? Under the direction of the teacher the pupils should make an outline of the new lesson, somewhat as follows:

IX. Cavaliers and Roundheads
   1. The quarrel between Charles I and the Parliament
   2. Many Cavaliers emigrated to Virginia

X. Bacon's Rebellion
   1. Berkeley reappointed governor and the effect
   2. Trouble with the Indians
   3. Bacon defeats Berkeley and burns Jamestown
   4. How Berkeley took revenge on the colonists after the death of Bacon
   5. The King recalls Berkeley

XI. Progress of the Colony and Founding of the College of William and Mary

With the topical analysis as a guide, the pupils should be required to study the topics, "Cavaliers and Roundheads," "Bacon's Rebellion" and "Progress of the Colony" for the next day.

Sixth Day. In the formal recitation on the assigned lesson, the pupils should be required to report topically on the topics of the assigned lesson.

The assignment of the new lesson:

During the time that the history of the Colony of Virginia is studied, or at the close of the first study of the colony, questions that demand more or less reflection, or which may result in forming judgments regarding the rightness or wrongness of the acts of historical personages, may be given out in class, be dictated to the class or be placed on the board for study and discussion.

Questions like the following may be introduced:

1. Study the picture, *The Landing at Jamestown*, on page 56 of the textbook, and tell what it suggests to you.

2. Write the story suggested by the picture on page 65 of the textbook which presents the scene in which Berkeley calls Bacon a rebel. Use direct discourse and make it as dramatic as possible.

3. What characteristics did Smith possess that made him a leader? Was he feared more than liked by the colonists? What makes you think so? Was it right for Smith to declare, "He that will not work shall not eat"?

4. How far was Jamestown from London? How long did it take for copies of new laws or regulations relating to the Virginia Colony to reach Jamestown from London? What bearing did this have on the development of self-government in the colony?

5. Was Bacon entirely right in his treatment of Berkeley? Was Berkeley entirely in the wrong?

6. How did the colonists treat the Indians? Did the Indians have rights which the colonists ignored?

7. As a subject for debate: The Indian massacres in Virginia might have been avoided.

Seventh Day. An entire recitation period may profitably be spent by the class discussing the above questions.

Written Compositions. Many written recitations should be introduced in connection with the study of history. Such written compositions constitute a valuable phase of language work and may well take up a part of the period devoted to language or grammar.

Various forms of written work based on the unit in history may be required, as follows:

1. Pupils may be required to write fully on some one topic of their own choosing.

2. Pupils may be asked to write a page or more on any topic selected by the teacher.

3. Pupils may be asked to answer thought questions.

4. Pupils may be required to write summaries of topics or units.

5. After other colonies have been studied pupils may be required to compare, say, the life in the Colony of Virginia with that in the Massachusetts Bay Colony or New York.

These written exercises may very properly be taken up soon after the work on the Colony of Virginia has begun, and be carried on during the time the history of the colony is a subject for study.

The Final Summary. The final effort of the teacher must be directed to securing the final summary of the entire unit. To encourage pupils in their efforts to summarize a large unit the teacher should in a brief talk of, say, ten minutes, show how the important events in the history of the Colony of Virginia may be presented in a connected way.

Realizing that pupils will experience not a little difficulty in summarizing large units, she will come to their assistance by helping them modify the outline as found on pages 3581-88 by omitting the subheads of the topics, by omitting certain topics entirely, and by combining related topics.

With the topical analysis before them and with books open, the teacher and pupils working together should prepare the summary outline to read somewhat as follows:

I. The organization of the London and Plymouth companies and the founding of Jamestown

II. John Smith, the starving time and the introduction of private ownership of land

III. The cultivation of tobacco and the introduction of slavery

IV. The government of Virginia

V. Bacon's Rebellion

Pupils should be drilled on this outline so that they can give it from memory.

The assignment for the next day will be to have pupils prepare to present orally the history of the Colony of Virginia in ten minutes. It will be found that when pupils have gained some power in summarizing broad subjects they will enjoy giving summaries not only in history, but in other subjects in the curriculum.

While the value of history is largely cultural and children will not be expected at the end of a course in that subject to remember all they have learned, these general summaries will help materially in fixing for life some of the great events in the history of our country.

These summaries can be made the means of giving an excellent training in generalizing. Suppose the class is prepared to summarize the history of Virginia in ten minutes and several pupils have succeeded in bringing their oral presentations within the time limit; the teacher may raise the question, "Is there a pupil who will give the summary in eight minutes?" If a pupil is found able to do that without increasing his rapidity of utterance, then volunteers may be called for to "break the record" by giving it in seven, six and five minutes.

Time Devoted to the Study of the Colonies. It may take two, possibly three, weeks to accomplish the work on the Colony of Virginia. But the inference should not follow that the entire colonial period is to be studied so exhaustively. The Virginia Colony is typical of all Southern colonies. Description of life in Maryland and North and South Carolina is largely a repetition of life in Virginia. Hence less attention need be given to the manners and customs of the early settlers in those colonies. Only the points of difference, if of sufficient importance, need be considered. The one new thought that pupils must carry away from a study of Maryland Colony is that, while the Catholics were in control, religious toleration obtained. In connection with Georgia, all that pupils need to understand and remember is the philanthropic movement that resulted in the planting of the colony, and the purpose Georgia served as a military outpost against the warlike Spaniards in Florida. It might be well for the teacher to summarize the important things in regard to these satellite colonies, thus diminishing the time that needs be spent on them.

In the North the central colony is Massachusetts. While this colony should be studied carefully to bring out the points of contrast between it and its sister colony, Virginia, it will be found that less attention may be given to certain phases of life because of the close study made of the Southern colony. Around Massachusetts Bay Colony may be grouped the other colonies of New England.

Either Pennsylvania or New York can be taken as the typical Middle colony. The others may be grouped about the one selected.

In the general review of all the colonies, such broad subjects as "Education in the Colonies," "Religion," "Industry and Commerce" and "Government" should be considered.

The Administrations of Andrew Jackson, 1829-1837*

In many respects the election of Jackson was an event of as much political importance as was the election of Jefferson. Men hailed it as another great uprising of the people, as another triumph of democracy. They acted as if the country had been delivered from impending evil, and hurried by thousands to Washington to see the hero inaugurated and the era of promised reform opened.

The New Party. Jackson treated the public offices as the "spoils of victory," and within a few weeks hundreds of postmasters, collectors of revenue and other office-holders were turned out, and their places given to active workers for Jackson. This "Spoils System" was new in national politics and created immense excitement. But it was nothing more than an attempt to build up a new national party in the same way that parties had already been built up in some of the states.

Jackson as President. In many respects Jackson's administration was the

* From *A Brief History of the United States*, by John Bach McMaster. Copyright, 1907, by American Book Company.

most exciting the country had yet experienced. Never since the days of President John Adams had party feeling run so high. The vigorous personality of the President, his intense sincerity, his determination to do, at all hazards, just what he believed to be right, made him devoted friends and bitter enemies, and led to his administration's being often called the "Reign of Andrew Jackson." The questions with which he had to deal were of serious importance, and on the solution of some of them hung the safety of the republic.

METHOD OF TEACHING THE ABOVE TOPICS

As a preparation for the study of this administration it is suggested that the teacher review briefly the public services of Jackson up to the time he became president, dwelling particularly on his military exploits in winning the Battle of New Orleans and crushing the Seminole Indians in Florida.

The teacher, too, should give a picture of the times immediately preceding the administration of Andrew Jackson; show how the people thought that they needed a champion to protect them from oppressive legislation; and that they believed they had found such a champion in the person of Andrew Jackson.

The teacher may also summarize briefly the three principal things for which the administration of Jackson stands:

1. The introduction of the "Spoils System."
2. Nullification of South Carolina.
3. The war on the United States Bank.

It will be necessary for the teacher to help the pupils in the study of the text. The large questions that came up for settlement in Jackson's administration are difficult for an immature mind to grasp and understand. It is advisable, therefore, for the teacher to offer explanations and at times to furnish facts which will illuminate the text. To do this the teacher herself must know history, and be a teacher of history, not simply a hearer of lessons.

The time devoted to the recitation in history each day will, as a rule, be devoted to (1) a test on the assigned lesson, and (2) a study recitation in which the teacher and pupils study the text with books open, as a preparation for the independent study by the pupils.

To illustrate the method of procedure, the work on the subject matter is divided into days. The class teacher, knowing the subject and the ability of the pupils, is in a position to decide fairly accurately the amount of subject matter that can be covered in a day.

First Day. After the teacher has introduced the pupils to the study of the administrations of Andrew Jackson, as indicated above, the closer study of the text may be begun. Each topic may first be read orally or silently in class.

The first three sentences of the text are introductory ones and it may be necessary for the teacher to make clear their meaning. A note found at the bottom of the page of the textbook will help explain the significance of the last sentence. Pupils should be asked the meaning of "triumph of democracy," "impending evil," "era of promised reform." The pupils should use the dictionary if necessary.

Questions like the following may be discussed in class:

What is meant by collectors of revenue? How could the "Spoils System" help in building up a national party? If the pupils do not know, the teacher should offer the explanation.

What is meant by the second sentence, "Never since the days of President John Adams had party feeling run so high"? What is meant by "vigorous personality"? "Intense sincerity"? "Determination to do"? What were the serious questions referred to?

But it should be remembered that the teacher is not the only one to ask questions. The pupils should be encouraged to ask questions freely to the end that any point not clear to them may be

explained by the teacher, or possibly some pupil.

As a formal assignment for the next day, have the pupils:

1. Read the above topics, and be prepared to give the substance of them in class. The paragraph headings will be found very suggestive. They should be used as a basis for the topical recitations.

2. Discuss the character of Andrew Jackson.

3. Read the note at the bottom of page 288, which is here inserted, and be prepared to describe the inauguration of President Jackson.

Note. The inauguration was of the simplest kind. Uncovered, on foot, escorted by the committee in charge, and surrounded on both sides by gigs, wood wagons, hacks full of women and children, and followed by thousands of men from all parts of the country, Jackson walked from his hotel to the Capitol and on the east portico took the oath of office. A wild rush was then made by the people to shake his hand. With difficulty the President reached a horse and started for the White House, "pursued by a motley concourse of people, riding, running helter-skelter, striving who should first gain admittance." So great was the crowd at the White House that Jackson was pushed through the drawing room and would have been crushed against the wall had not his friends linked arms and made a barrier about him. The windows had to be opened to enable the crowd to leave the room.

Second Day. The pupils will be required to talk topically on the assigned lesson. If the subject matter is not quite clear to the pupils the teacher will offer additions and explanations.

The New Lesson

The South Carolina Doctrine. Such a one was the old issue of the tariff. The view of the South as set forth by the leaders, especially by Calhoun of South Carolina, was that the state ought to nullify the Tariff Act of 1828 because it was unconstitutional. Daniel Webster attacked this South Carolina Doctrine and (1830) argued the issue with Senator Hayne of South Carolina. The speeches of the two men in the Senate, the debate which followed, and the importance of the issue, make the occasion a famous one in our history. That South Carolina would go so far as actually to carry out the doctrine and nullify the tariff did not seem likely. But the seriousness of South Carolina alarmed the friends of the tariff, and in 1832 Congress amended the act of 1828 and reduced the duties.

South Carolina Nullifies the Tariff. This did not satisfy South Carolina. The new tariff still protected manufactures, and it was protection that she opposed; and in November, 1832, she adopted the Ordinance of Nullification, which forbade any of her citizens to pay the tariff duties after February 1, 1833.

When Congress met in December, 1832, the great question was what to do with South Carolina. Jackson was determined the law should be obeyed, sent vessels to Charleston Harbor, and asked for a Force Act to enable him to collect the revenue by force if necessary.

The Great Debate. In the course of the debate on the Force Act, Calhoun (who had resigned the vice-presidency and had been elected a senator from South Carolina) explained and defended nullification and contended that it was a peaceable and lawful remedy and a proper exercise of state rights. Webster denied that the Constitution was a mere compact, declared that nullification and secession were rebellion, and upheld the sovereignty of the Union.

The Compromise of 1833. Clay meantime came forward with a compromise. He proposed that the tariff of 1832 should be reduced gradually till 1842, when all duties should be twenty per cent on the value of the articles imported. As such duties would not be protective, Calhoun and the other Southern members accepted the plan, and the compromise tariff was passed in March,

1833. To satisfy the North and uphold the authority of the government, the Force Act also was passed. But as South Carolina repealed the Ordinance of Nullification there was never any need to use force.

Study Recitation. Although the question of the tariff has come up prior to this time, it is advisable to have the subject explained again. The teacher should also explain to the class what is meant by "nullifying the Tariff Act." She should state the position maintained by Calhoun in regard to the South Carolina Doctrine as found in the note on page 290 of the textbook, and which is found below. She should be prepared to read extracts from the speeches of Senator Hayne and of Daniel Webster. She should summarize the theory of the National Government as advanced by Webster in the greatest speech ever delivered in Congress, and possibly in the world, somewhat as follows:

1. Not the states but the people of the nation made the Constitution.

2. If Congress exceeded its powers, appeal could be made to the Supreme Court to declare the laws null or void.

3. The Union would fall apart if each state could nullify an act of Congress.

There will be no necessity to outline the doctrine of state sovereignty as advanced by Hayne because that doctrine is clearly stated by Calhoun and is contained in the note here introduced.

Note. Calhoun maintained (1) that the Constitution is a compact or contract between the states; (2) that Congress can only exercise such power as this compact gives it; (3) that when Congress assumes power not given it and enacts a law it has no authority to enact, any state may veto, or nullify, that law; that is, declare it not a law within her boundary; (4) that Congress has no authority to lay a tariff for any other purpose than to pay the debts of the United States; (5) that the tariff to protect manufactures was therefore an exercise of power not granted by the Constitution. This view of the Constitution was held by the Southern States generally. But as the two most ardent expounders of it were Hayne and Calhoun, both of South Carolina, it was called the South Carolina Doctrine.

The teacher should make selections from the speeches of Hayne and Webster, and have some of the best readers either read or recite them before the class at some future time.

Questions like the following should be discussed:

Why was South Carolina not satisfied with the amendment of 1832? Explain the Ordinance of Nullification. What position did Jackson take in regard to the action of South Carolina?

While, in a way, Calhoun and Webster covered the same ground in their speeches that Hayne and Webster had, the teacher should read extracts from them to the class, if only to show the intense earnestness and force with which Calhoun defended the principle of nullification.

Suggestive questions on the topic, "The Compromise of 1833":

What is meant by a compromise? What was the compromise proposed? Why should the tariff be reduced gradually? Why was Calhoun satisfied with the compromise? Was there any necessity to pass the Force Bill? Why, then, was it passed? Explain how each side won a victory. Did the Southern leader really give up the theory of nullification?

As an assignment for the next day, have the pupils:

1. Study the above topic and be ready to recite topically on it.

2. Answer the questions:

(a) Tell about the speeches of Hayne and Webster.

(b) Tell how South Carolina adopted the Ordinance of Nullification and what Jackson did to uphold the Tariff Law of 1832.

(c) Tell of the great debate on the Force Act.

(d) Tell how Clay's compromise resulted in the repeal of the Ordinance of Nullification.

Third Day. The pupils should be required to recite topically on the assigned lesson, and to talk on the questions submitted the previous day.

The New Lesson

First National Nominating Conventions. In the midst of the excitement over the tariff, came the election of 1832. Since 1824, when the Republican Party was breaking up, presidential candidates had been nominated by state legislatures and caucuses of members of state legislatures. But in 1831 the Anti-Masons held a convention at Baltimore, nominated William Wirt and Amos Ellmaker for President and Vice-president, and so introduced the national nominating convention.

The example thus set was quickly followed: In December, 1831, a national convention of National Republicans nominated Clay (then a senator) for President, and John Sergeant for Vice-president. In May, 1832, a national convention of Jackson men, or Democrats, as some called them, nominated Martin Van Buren for Vice-president. There was no need to renominate Jackson, for in a letter to some friends he had already declared himself a candidate, and many state legislatures had made the nomination. He was still the idol of the people and was reelected by a greater majority than in 1828.

The Bank Attacked. One of the issues in the campaign was the recharter of the Bank of the United States, whose charter was to expire in 1836. Jackson always hated that institution, had attacked it in his annual messages, and had vetoed (1832) a recharter bill passed (for political effect) by Clay and his friends in Congress.

Removal of the Deposits. Jackson therefore looked upon his reelection as a popular approval of his treatment of the bank. He continued to attack it, and in 1833 requested the Secretary of the Treasury, William Duane, to remove the deposits of the government money from the bank and its branches. When Duane refused, Jackson turned him out of office and put in Roger B. Taney, who made the removal.

The Senate passed resolutions, moved by Clay, censuring the President for this action; but Senator Benton of Missouri said that he would not rest till the censure was expunged. Expunging now became a party question. State after state instructed its senators to vote for it, and finally in 1837 the Senate ordered a black line to be drawn around the resolutions and the words "Expunged by order of the Senate" to be written across them.

Rise of the Whig Party. The hatred which the National Republicans felt for Jackson was intense. They accused him of trying to set up a despotic government, and asserting that they were contending against the same kind of tyranny our forefathers fought against in the War of Independence, they called themselves Whigs. In the state elections of 1834 the new name came into general use, and thenceforth for many years there was a national Whig Party.

Study Recitation. The following questions may be asked:

Who were the Anti-Masons? Perhaps it may be well for the teacher to tell the class that Jackson had declared again and again that he would not be a candidate for the presidency a second time, but that it is said his desire to destroy the United States Bank caused him to change his mind.

Before the subject of the United States Bank is taken up the teacher should engage the pupils in a conversation to find out what they know about the subject of banks and banking. It will probably be necessary for the teacher to make clear to the pupils the following:

1. A bank and its functions.
2. Kinds of banks.
3. The United States Bank, its branch banks and functions of each.
4. Why Jackson was opposed to the bank.
5. A brief history of the United States Bank to 1832.

The teacher should state to the pupils that Jackson had forced the bank into politics, that the friends of the bank took the name National Republicans, and that the campaign turned on the recharter of the bank. Then the pupils will be in a position to appreciate the significance of the first sentence. Jackson therefore looked upon his reelection as a popular approval of his treatment of the bank.

The teacher should make clear that the tariff brought in more revenue than the government needed, and that as a consequence large amounts of money had hitherto been deposited in the United States Bank which now were withdrawn.

If possible, the teacher should get a copy of the resolutions passed by the Senate censuring the President, and showing how they were expunged.

As a formal assignment for the next day, the pupils should be prepared to give the substance of each paragraph and to answer the following questions:

1. Tell how the national nominating conventions were introduced.
2. What was Jackson's attitude toward the United States Bank?
3. What was done with the money the United States Government had deposited in the bank?
4. Tell about the resolutions passed by the Senate which censured the President, and how these resolutions were expunged.
5. Tell about organization of the Whig Party.

Fourth Day. As a test on the assigned lesson, the pupils will recite topically on parts of the assigned lesson, and answer the assigned questions.

The New Lesson

The Anti-Slavery Movement. The Missouri Compromise was supposed to have settled the issue of slavery. But its effect was just the reverse. Anti-slavery agitators were aroused. The anti-slavery newspapers grew more numerous and aggressive. New anti-slavery societies were formed and old ones were revived and became aggressive, and in 1833 delegates from many of them met at Philadelphia and formed the American Anti-Slavery Society.

Anti-Slavery Documents. The field of work for the anti-slavery people was naturally the South. That section was flooded with newspapers, pamphlets, pictures, and handbills intended to stir up sentiment for instant abolition of slavery and liberation of the slaves.

Against this the South protested, declared such documents were likely to cause slaves to run away or rise in insurrection, and called on the North to suppress them.

Pro-Slavery Mobs. To stop their circulation by legal means was not possible, so attempts were made to do it by illegal means. In many Northern cities, as Philadelphia, New York, Boston, Utica, and elsewhere, mobs broke up the anti-slavery meetings. In Charleston, South Carolina, the postmaster seized some anti-slavery documents and the people burned them. At Cincinnati, the newspaper office of James G. Birney was twice sacked and his press destroyed (1836). Another at Alton, Illinois, was four times attacked, and the owner, Elijah Lovejoy, was at last killed by the mob while protecting his press.

The Right of Petition. Not content with this, the pro-slavery people attempted to pass a bill through Congress (1836) to exclude anti-slavery documents from the mails, and even attacked the right of petition. The bill to close the mails to anti-slavery documents failed. But the attempt to exclude anti-slavery petitions from the House of Representatives succeeded: a "Gag Rule" was adopted which forbade any petition, resolution, or paper relating in any way to slavery or the abolition of slavery to be received; this was in force to 1844.

Our Country out of Debt. Despite all this political commotion our country for years past had prospered greatly. In this prosperity the government had shared. Its income had far exceeded its expenses, and by using the surplus

year by year to reduce the national debt it succeeded in paying the last dollar by 1835.

The Surplus. After the debt was extinguished a surplus still remained, and was greatly increased by a sudden speculation in public lands, so that by the middle of 1836 the government had more than $40,000,000 of surplus money in the banks.

What to do with the money was a serious question, and all sorts of uses were suggested. But Congress decided that from the surplus as it existed on January 1, 1837, $5,000,000 should be subtracted and the remainder distributed among the states in four installments.

Study Recitation. Questions like the following will be discussed in class:

Some pupil should state the provisions of the Missouri Compromise. What is meant by "anti-slavery newspapers" and "anti-slavery agitation"?

Why did the South call on the North to suppress anti-slavery literature?

Why could the circulation of anti-slavery literature not be stopped by legal means? Enumerate the instances in which this was attempted by illegal means.

How did the pro-slavery people manage not to have anti-slavery petitions received by the House of Representatives?

How did our government come to be out of debt?

What is meant by "after the debt was extinguished"? Was it a wise act of Congress to provide for the distribution of the surplus amounting to $37,000,000 among the states? What states shared in this surplus?

As a formal assignment for the next day, pupils should be able to give the substance of each paragraph and topic, and be able to answer the following questions:

1. Tell about the growth of the anti-slavery movement.
2. Tell about the action of the pro-slavery mobs.
3. Tell about the "Gag Rule."
4. Tell how the United States Government came to have a surplus, and what was done with this surplus.

Fifth Day. As a test on the assigned lesson, the next day the pupils should be required to answer the questions submitted to them the previous day.

After the pupils have studied the administration of Andrew Jackson both in class and at home, and after they have given the substance of the topics, they should study the entire unit with the view of:

1. More thoroughly understanding the subject matter.
2. Being able to recite topically on any topic or series of topics.
3. Being able to summarize briefly the entire unit.

With the above ends in view the teacher should, working with the pupils, divide the subject matter of the chapter into topics somewhat as follows:

I. Jackson and the Public Offices

II. The Nullification of South Carolina

III. The First National Nominating Convention

IV. The War on the United States Bank

V. The Anti-Slavery Movement and Right of Petition

VI. Financial Condition of the Country

Then the pupils should, while reviewing the chapter, find appropriate subheads under each topic. These may be recast somewhat by the teacher so that the outline may assume a form somewhat as follows:

Jackson's Administration

I. Jackson and the Public Offices
   1. Offices considered as spoils of victory
   2. Purpose of "Spoils System"
   3. The personality of the President

II. The Nullification of South Carolina
   1. The view of the South in regard to the tariff

2. The speeches of Webster and Hayne
3. The tariff reduced in 1832
4. Ordinance of Nullification
5. The Force Act and the Great Debate, Webster-Calhoun
6. The Compromise of 1833

III. The First National Nominating Convention

1. The Anti-Masons in 1831
2. Nomination of Jackson in 1832

IV. The War on the United States Bank

1. Jackson vetoes the Bank Bill of 1832
2. Jackson withdraws government deposits from the bank in 1833
3. The President censured by the Senate
4. The resolutions censuring Jackson expunged in 1837

V. The Anti-Slavery Movement and Right of Petition

1. The Missouri Compromise and its effect
2. The Anti-Slavery Society and its agitations
3. Pro-Slavery mobs
4. "Gag Rule"

VI. Financial Condition of the Country

1. The national debt paid by 1835
2. The surplus divided among the states

With the topical outline on the blackboard to be referred to by the pupils, they should review the entire chapter and be able to recite topically on the entire unit. The teacher should urge the pupils to recite their review history lesson at home. In this way each pupil will get a chance to talk on the entire chapter.

Additional Thought Questions. While the pupils are reviewing Jackson's administrations as a whole, or after they have completed the review, additional thought questions should be introduced, some of which may require the making of ethical judgments. Questions like the following may be considered:

What is there wrong in the doctrine, "To the victor belong the spoils of the enemy," when applied to politics? Did Jackson realize that he was introducing a "Spoils System" that was to continue in the Government of the United States until recent years? Was Jackson right in assuming that every taxpayer should be given a chance to hold office?

What is meant by "civil service reform"? What government employees in your city or town are under civil service rule? Should they be? Arguments for and against.

In Jackson's administration, the sturdy manhood of the nation, for the first time, felt that it was admitted to a full share in the government. Explain.

Why was the South so bitterly opposed to the tariff? Had the threat of nullification been used before 1832? Cite cases. It is said that in the great debate between Webster and Hayne, Hayne occupied old ground, and Webster occupied new ground. Explain.

What was meant by state sovereignty? Did that idea disappear after South Carolina was appeased by the Compromise of 1833? Are compromises necessary to the working of a democratic form of government? Cite cases in your community. Did Calhoun really try to break up the Union? Upon his death in 1850, Daniel Webster said of him: "He had the indispensable basis of all high character and that was unspotted integrity and unimpeached honor. . . . I do not believe he had a selfish motive or a selfish thought in his whole being." How do you reconcile this estimate of Calhoun with his acts?

What in your estimation, caused Jackson to be so extremely hostile to the United States Bank? Woodrow Wilson in *Division and Reunion* says: "It probably was a wise instinct that caused Jackson to destroy the bank." Give arguments for and against this idea.

AN OUTLINE HISTORY OF CIVILIZATION

A few years ago, we knew but little about electricity; now we employ it in every department of industrial activity. We use it to light our homes and streets, to run our cars, turn machinery and transmit messages. Similarly, everything that contributes to our present stage of enlightenment is a growth, a development, of something more crude that preceded. Ages ago then, man must have been very low in the scale as compared with the present. An account of the main steps in advance which have led up to our present stage of enlightenment is a History of Civilization which constitutes a very important division of history in its broad sense. (Page 1321.)

When Did Man Appear on Earth?

We determine the antiquity of man in exactly the same way we do the antiquity of any other form of animal life. If in some undisturbed stratum of the earth's surface we discover rude implements evidently the work of men, or bones of the human skeleton, we would have no hesitation in saying that man was living when that stratum was forming. Every discovery of this nature has been most carefully studied, and geologists have been asked to determine the age of the strata. In this way, we have searched in India, Africa, Europe and America. It is sufficient to say that present evidence conclusively shows that man was living in a preceding geological age, probably as early as the Tertiary age. (Page 1148.) But we can not as yet say how many years ago that was. We may be sure that no petty figures will suffice. The historic period, however long it may be, is but an insignificant fraction of the whole. (Page 1321.)

His Position in Culture

We know that primitive man was very low in the scale of culture, but we do not realize what that phase implies. All savages now living (including those found in Australia when it was first discovered) are evidently considerably advanced above the stage of primitive man. The shortest description is to say that they were in the Old Stone Stage of Culture. (Page 2769.) But since the first period was very prolonged, doubtless much longer than all the time that has elapsed since its close, that term does not wholly describe his condition. An expressive phrase is to say that the first men were at the zero point of human advance. They had everything to learn, since all that makes up our present civilization was still far in the future. We can say that when this period ended a considerable advance, relatively speaking, had been made.

Age of the Black Races

The word "age" is here used in the same sense as in geology. We talk about the age of fishes, meaning that fishes were the predominant type of life at that particular period. In calling this period in culture history the Age of the Black Races it is meant that they were the predominant race, thus giving their name to the entire period. It is not meant to be implied that they were Negroes. Doubtless every representative of that primitive race long since passed away, like many of the animals that kept it company.

Points to Be Remembered About This Age

Its commencement was in a former geological age, long preceding the historical period. It extended over a vastly prolonged period of time, it passed away at different dates in different sections of the world, but everywhere long before the dawn of history. Their culture was exceedingly primitive though we have evidence in their remains that, relatively, considerable advance had been won before its conclusion, such as a knowledge of fire, and the fashioning of rude implements, mostly stone, though bone was

also employed. These primitive men spread over the surface of the earth generally, for we find their remains in such widely scattered areas as Asia, Europe and America. Where conditions were favorable, they utilized caves as homes.

Age of the Yellow Races

This is the name of the second great age in the history of Civilization. The home-land of the yellow races, where they arose, developed their stage of culture and thence spread over the world in great migrating waves, was north-central Asia. The time of beginning is obscure, though doubtless it was many thousand years before the dawn of authentic history. From their homeland, they spread to other parts of Asia, to Europe, to America, both North and South, and to north Africa. Wherever they went they found representatives of the black races who had preceded them as in the Valley of the Euphrates, India and North Africa. In Europe there is some evidence to the effect that a very long time elapsed between the close of the former age and the beginning of the yellow age. This age extended over a very long time, and some of the earlier migrations were of people not as advanced as those later. It also is wholly prehistoric though it was passing away just as history opens in the valley of the Euphrates.

Advance in Culture

We are in the presence of a much higher stage of culture than that of the preceding age. Even the earliest migrating bands were people in the culture of the New Stone Age. (Page 2769.) That is to say, they polished and smoothed their flint implements and shaped them for different purposes such as chisels, axes, knives, spears and arrows. They freely employed other material also, such as bone. Further, progress was becoming much more rapid. While advance was scarcely noticeable in the immensely prolonged preceding age we can trace a very distinct advance during this age, for later emmigrants from the home-land had domestic animals, practiced a rude agriculture and horticulture, as is shown from a study of different remains in Europe.

Tribal Society

One of the greatest advances ever made by man was accomplished by the yellow races and doubtless is the secret of their success in overrunning other lands, for it is the starting point of advance in all directions. That was the organization of tribal society, or the government of people in tribes. This form of government everywhere preceded our form which is territorial government. Tribal society is really very complicated but not until this stage was reached could ideas of property take their rise and along with that advance laws began to be promulgated. In short, all the foundations of our present civilization were laid by the widely spreading yellow races. Primitive learning—infantile science—began, and religion entered on its primitive stage, which indeed was very crude. (Page 2422, Sub-head Religions of Primitive Culture.)

Yellow Races of the Present

Unlike the preceding age, very vigorous representatives of the yellow races still survive, in fact, they seem now entering on another period of youthful vigor. Japan has leaped from a position of isolated obscurity to the ranks of a vigorous world power, and China seems waking from the lethargy of centuries. But as far as the history of civilization is concerned, the yellow age, after having continued for many thousands of years, passed away just as history was dawning, which event, however, was not the same in all sections of the world, less than five centuries have elapsed since it began in the New World.

Age of the White Races

History, proper, begins with the rise to influence and power of the White Races. This age is so rich in material

that we must subdivide it. From what we have stated, we know historic time, though going back from seven to ten thousand years B. C. is, after all, only a small part of the time covered by the life of man on the globe. For our purpose, we shall continue to divide this outline into periods designated by the name of the predominant people of the time, those who left a great influence on the culture of the world.

The Semitic People

The Semitic People appear as those who quickly absorbed the culture of the yellow age, carried it to its acme of development, made many additions thereto and from their location in the Euphrates Valley sent forth a leavening influence that passing into other sections stimulated their culture and started them into further advance.

Their home-land was in the Arabian Peninsula though some think they were seated on both shores of the Red Sea. But the Euphrates Valley, one of the first sections settled by Semitic tribes from Arabia, became their center of development and subsequent dispersion. Here, absorbing the culture of the preceding yellow people (known as Sumerrians, from whence comes the Biblical name of Shinar), they built up a wonderful civilization, which was well advanced as early as seven thousand B. C.

Their Contribution to Culture

They carried the organization of tribal society to its highest point of development and built up great monarchies, but we must understand that they were not monarchies such as we now have since their units were not states or provinces but tribes. Further, the Semites greatly stimulated trade and commerce, which have always been great factors in advancing civilization since they bring people into contact with each other and increase the store of general knowledge. But commerce necessitates contracts and laws for their enforcement, hence codes of laws made their appearance, the first known code coming from Babylon. It is asserted that the Phoenician alphabet originated from a necessity of keeping some sort of a record of commercial transactions. (Page 827.)

Their contribution to science was also very great. (See Compendium of History, Vol. VI, Article "Chaldean Civilization.") Under the necessity of constructing drainage canals, also used for irrigation purposes, they had to develop primitive engineering and surveying. To them is probably due the beginnings of astronomy, consequently a knowledge of the circle and the familiar divisions of the same. All this necessitated elementary mathematics.

Building on the primitive religious faiths of the yellow races (Page 2422) they made great collections of poems, songs and folk lore traditions of the earlier age. For this purpose they developed Cuneiform writing. (Page 760) and in these collections we have the first libraries and consequent literature ever known. These ancient collections still influence the beliefs of the world. Advancing from primitive religions they built up great polytheistic systems (Page 2422) and finally, we must bear in mind that Judaism (Page 1522) was established among a Semitic people.

Principal Points of This Period

In all, it was a brilliant period in the early history of civilization, and our present culture dates from thence. For more than twenty-five centuries, Babylon was the social, religious and scientific metropolis of the world as Rome was at a later period. Roundly speaking, this age covers about ten thousand years of history, since it passed away when Greece rose to power. As in the case of the yellow races, Semitic people are still active in the affairs of the world and it may be that in the not distant future a renaissance awaits them also.

The Hamitic People

The only distinguished people of this group was the ancient Egyptians, whose civilization constitutes one of the most interesting but least understood phenomena of history. When history dawns on the Egyptian people as early as 5000 B. C. they were already powerful and highly civilized. But during their entire period of activity (over 4000 years) they remained virtually stationary in culture. At least there was very little advance, since remains from the earliest period indicate as great a degree of culture as those of the time when their activity was ending. Further, their influence on the civilization of the world was limited. They lived a brilliant cycle but lived it largely to themselves. In this respect there was a great difference between them and the Semitic people on the east. A few years ago, it was thought necessary to trace the beginnings of modern culture to Egypt. That is now no longer the case, though everything bears testimony to their wonderful life cycle. We might say that Egyptian culture and history is as a beautiful insert wherewith to embellish the annals of the stirring, aggressive, advancing Semitic people of Chaldea.

The Aryan People

The predominant people in the culture history of the world for the last twenty-five centuries have been the Aryans, to which group we belong. (Page 163.) The home-land of the Aryans was Europe, though to the north and east of the Caspian Sea was a center of dispersion some thousands of years ago. Though we know they had arrived in India more than four thousand years ago, though Egyptian records speak of them as active on the bounds of Egypt at almost as early a date, and though excavation shows their presence in Cyprus at an even earlier time, still this age in culture properly begins about 1000 B. C. in Greece. We are justified in concluding that at that date all Europe was inhabited by Aryan tribes in the culture of the yellow races, influenced, however, by Semitic culture coming by caravan routes and by the trading expeditions of the Phoenicians. (Page 2246.) Starting from this foundation, Aryan people have arrived at our present stage of enlightenment.

Their Great Step in Advance

They accomplished a wonderful step in advance when they instituted Political Society, that is changed from tribal society to the form of territorial government. This was an advance even more pronounced than was the achievement of the yellow races in instituting tribal society. Careful thinkers have asserted that the whole process of civilization has consisted in bringing to the front individual rights and duties. Political Society made such a result easy since it broke down tribal relations.

This change was first effected in Greece. The struggle extended over some centuries in time and occupied the attention of a number of gifted statesmen. The legislation of Cleisthenes marks its final adoption. Then it was effected in Rome and we catch clear traces of the impending change in other branches of the Aryan people, as the Anglo-Saxon English. Feudal society, so hard to be understood by some, is after all a survival of tribal usages. The recent legislation in Russia putting an end to the mir or village community is only the final step of this change in Russia. As evidence of the general recognition that tribal society is not suited to progressive life is the fact that our government is now forcing our Indian tribes into political society, that being the only way for them to achieve a higher culture.

Political Society constitutes the great contribution of the Aryan people to civilization. Following in its wake came great advance, simply because individual exertions was made possible. Thus was initiated the gradual but sure, and now rapid advance in everything that makes up our present stage of enlightenment.

RACES OF MEN

In our country, it is not difficult to find representatives of all the principal races of men. A great many attempts have been made to classify the various races, that is to place them in closely related groups. It has been difficult to arrange a satisfactory scheme.

Some of the elements of classification relied on in former years have now been discarded. In fact, it is only by taking a few very broad and general traits that we can group them in any satisfactory manner; and any grouping we may select is liable to change as we learn more about the various races of the world.

The scheme that we have adopted makes three major divisions on the basis of color. It must be understood that color is only one of the elements of classification; it must be considered in connection with other characteristics. It is selected because it is the most striking one. It would be found on investigation that the most prominent scholars agree substantially with this classification, though what we call the Yellow Races some call Brown, some Red, and some have also transitional classes. The order in which we have placed them is in agreement with the conclusions set forth in the outline History of Civilization to which it would be well to refer.

OUTLINE OF THE RACES OF MEN

I. Black Races

A. General Characteristics.

The prevailing color is black, or dark brown. The Bushmen of Africa are yellow, and the Hottentots are sometimes described as being copper-colored. The heads of nearly all the members of this group are narrow as compared with length. The Negritos are an exception, and so are some of the negro tribes in Africa. In all, the lower parts of the face project forward (Prognathism) more than in the other two groups. The capacity of the skull and weight of the brain are also less. Their institutions and state of society are of the rudest and most archaic types. The languages are mainly agglutinating. Some of the South African approach inflection, and some are said to be isolating. (Sayce.) Their system of relationship is the most primitive.

B. Divisions.

a. Wooly Haired. This division includes the various negro races in Africa; also the inhabitants of a chain of islands extending from Tasmania eastward to Fiju, north to New Guinea, not including Australia; also, the Negritos, or the aboriginal inhabitants of the Andaman Islands, the Peninsula of Malacca and the Philippine Islands.

b. The Straight Haired. This division includes the inhabitants of Australia, and we will also include it in the aboriginal inhabitants of India.

II. Yellow Races

A. General Characteristics.

a. Color of all the Old World families, yellow, leather yellow, or yellowish brown. The Behring family has brownish, dark-colored skin. The American family varies from a slight darkness of copper red. Very little hair on the body; hair of the head, black, coarse, and straight; prominent cheek bones; eyes, oblique; heads, broad, as compared with the length—to this last the Eskimos are an exception.

B. Division.

a. Turanians. This division includes the various tribes in Northern Asia, extending over into Europe. They constitute a linguistic family, though not one so closely connected as the Aryans. Their system of relationship is the same as

the Aryans. This family has the following subdivisions: Tungus, true Mongols; Turks, Finns, and Samoyedes. Each of these latter could be still further divided. The Japanese and Coreans are closely relater to the Turanians and by some their language is classed with the Tungus. (Sayce.)

b. Asiatics. It is difficult to find a name for this group. It includes the Chinese, the inhabitants of Thibet and the southern slopes of the Himalayas, the Burmese, Siamese, and Southeastern Asia generally. The language of this group is isolating. (Sayce.) Little is known of their system of relationship.

c. Malayo-Polynesian. This division includes the inhabitants of Oceania generally. It is largely a mixed race. A black race, represented by the Papuans, appears to have been the foundation. Relationship, still allied to the Kafirs of Africa. Language, agglutinative.

d. Behring Family. This includes a number of North Asiatic and American tribes, which, for the most part, inhabit the shores of Behring's Strait, or have migrated like the Eskimos, from its shores to Greenland. (Peschal.) It includes the Eskimos, Thlinkits, and Aleutians, of America; the Itelmes, Koriaks, and Namalls, of Asia. Language, Polysynthetic.

e. American Family. This includes the numerous tribes of North and South America at the time of their discovery. Language, Polysynthetic; some tribes in Mexico said to have been in the isolating state. (Sayce.) Relationship, allied to the Dravidian.

III. White Races

A. General Characteristics.

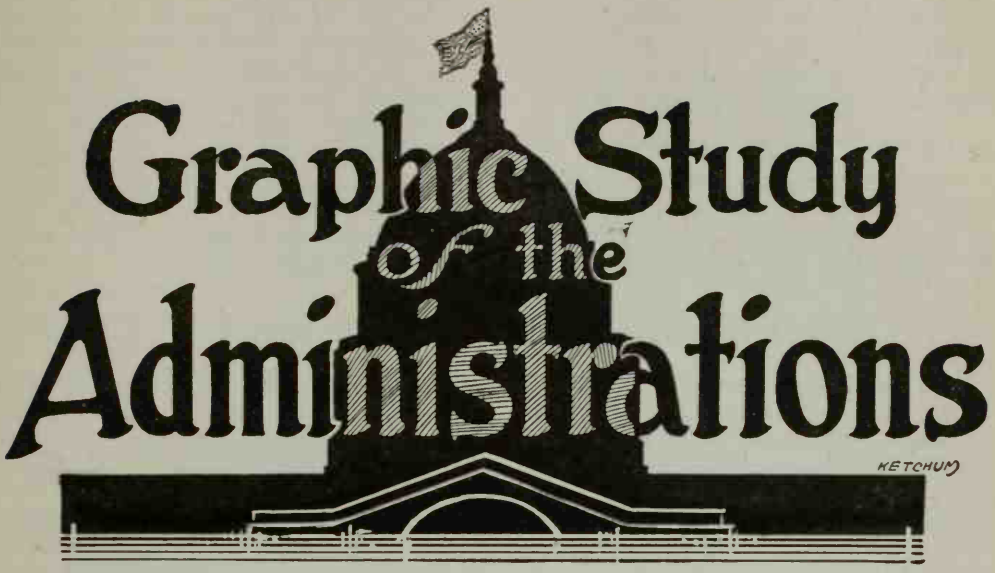
a. Color, fair; lightest in the Aryans, darkest in the Hamites. Dimensions and weight of the brain, greatest among the white races. In the shape of the head, they occupy an intermediate position between the black and the yellow races. They have the smallest degree of prognathism. They are the historic races. The culture and civilization of the ancient world was Hamitic and Semitic; that of the modern world is Aryan.

B. Divisions.

a. The Aryans. This includes the inhabitants of Europe generally, and the great bulk of the immigrant people in the New World. In Asia, the Brahmins of India, the Persians, Kurds, and Afghans. Language, inflected. Relationship, descriptive.

b. The Semites. The Abyssinians and many tribes in Eastern Africa; the Hebrews, Phoenicians, Syrians, Assyrians, Chaldeans, Babylonians, and Arabs. Language, inflected. Relationship, descriptive.

c. The Hamites. The Berbers and several tribes in Africa; the Copts and the ancient Egyptians. The language in inflected, though weakly so. Relationship, unknown; probably descriptive.



The previous section closed with an exhaustive study of the administration of Andrew Jackson. In a similar way studies can be made of other administrations that are of special importance in our national history, as that of Abraham Lincoln. A study of Woodrow Wilson's administration would lead to a consideration of the part of the United States in the European War of 1914.

A New Point of View

You will notice graphic representation of the principal events of each administration. These pictured records enable you to visualize the administration, to see it in the mind's eye. To assist in that process, we add a page of comment, which may be regarded as a brief of the administration. We cannot speak at length, but we can strengthen the lessons of the graphics by calling attention to the events mentioned or represented. This assists to form a mental picture of the history of the administration. What you thus visualize you easily remember.

Caution

The president is not responsible for all or even the greater part of events that mark his administration. He simply gives his name to a definite period of time. Naturally, some presidents had more influence in shaping public affairs during their administrations than others. Compare in this respect the administrations of Woodrow Wilson and Andrew Johnson.

Political Development

When General Washington was elected president we were a feeble nation fringing the Atlantic coast, with a wilderness background stretching west to the Mississippi. We were just entering on a form of government new to history,—thirteen independent states were uniting to form a nation. But national consciousness, a feeling on the part of the individual that he was a citizen of the United States, not simply of some one state, was a matter of slow growth. It required nearly a century of time and the experience of war to fully establish the supremacy of the nation over the individual states. In

the meantime our country grew rapidly in area, population, wealth and power. We shall use the graphic discussions of the administrations to show this development in material well-being and the gradual steps in political development.

Assistance in this Study

We have prepared a beautiful series of charts in colors to accompany this series of graphic discussions. Carefully compare these two departments. Reference is also made to articles in the "Home and School Reference Work," giving details of the life of each president, also the principal events. The article, "Political Parties in the United States," should be consulted. In addition, read carefully the article, "United States," subhead, "History," beginning page 2975. A large number of questions on history in general are found in our Question Department, beginning on page 4553; see also Political Questions, page 4572.

GEORGE WASHINGTON (2975)

This administration was the first and most momentous of our national administrations. It marks an epoch in the world's history, as well, as it was a new experiment in government. The constitution was new; several of the states had ratified it reluctantly; two, North Carolina and Rhode Island, refused their consent until assured of many amendments. With no precedents to guide them, the statesmen of the time had to feel their way. The method of choosing electors was so unsettled that New York failed to appoint any. Only ten states participated in the first election, and only 69 electoral votes were cast. There were no party organizations; but there were two separate groups of political thinkers and statesmen, and soon two distinct parties resulted from this fact,—the federalists and anti-federalists (2298). All, however, were for Washington, and he was the unanimous choice of the country.

Such was the difficulty of transportation that, though Congress was called to convene March 4th, 1789, it was not until April 6th that a quorum in both houses was present, and Washington was formally elected president; but, theoretically, his term began March 4, 1789, and consequently every fourth year since then a president has been inaugurated.

The Cabinet.—The first Cabinet was not formally appointed until September, 1789. Before that time officers (or commissions) appointed under the old government continued in charge. The first Cabinet was not a cabinet in the modern sense of the term. There was no party platform for Washington to follow, no party leaders to appease. He appointed men whom he regarded as eminently fitted for the place,—as Hamilton, leader of the federalists, secretary of the treasury, and Jefferson, anti-federalist, secretary of state. Consequently the first cabinet was not harmonious politically and did not unitedly support the views of the president.

Washington's Second Term. — Fifteen states participated in the second election, since two new states (Vermont and Kentucky) had been admitted. Again Washington was the unanimous choice for president; but party lines showed themselves in the election for vice-president, and during the second term opposition to the administration became very pronounced.

Principal Events. — The principal events of his administration are well represented on the graphic (see colored section following). Notice the admission of new states (3015, 2854, 1547). These states were admitted in accordance with provisions made under the old Articles of Confederation. Part of the great work of Hamilton is represented in the organization of the mint (1866) and the United States bank (239), but consult the history of his life (1263) to form a clear idea of his activities. The Whisky

Insurrection (3119) was an important event, since it was an object lesson, showing that the new government had within itself the means of enforcing its laws.

Indian Affairs.—The Indian problem confronted the new government, just as it had the colonies, and numerous delegations from Indian tribes visited Philadelphia (the seat of government) to consult with Congress and the President. Important treaties were made with Creeks (738) and the Five Nations (1037). An important war with the Miami Indians led to a disastrous defeat (2515) and a great victory (3092).

Foreign Affairs.—The celebrated Jay Treaty with England (1497), the Proclamation of Neutrality with France and England (2976), and the management of affairs with France were all of the utmost importance, and all met with great opposition from influential citizens in various sections of the country. The ground of opposition to the neutrality proclamation was varied. Some thought we should repay the aid of France by openly assisting her in her struggles with Great Britain; others thought that the act of the president was an unauthorized assumption of authority.

Organizations of the Supreme Court.—The organization of the Supreme Court in Washington's administration (2796) was of the greatest importance. The states were jealous of each other and of their rights and were inclined to resent any interference in what they considered their affairs. It was the work of the court to uphold the authority of the general government; and this is one of the corner stones on which our strength as a nation rests.

Inventions.—Attention is called to the invention of the first cotton gin. By a reference to the Story of Cotton you will note the great importance of cotton in the industrial life of our country. This invention was the first step taken in the modern development of the cotton industry.

The Tariff Bill.—The passage of the first Tariff Bill is a landmark in the history of tariff legislation (see Tariff, P. 2826). This tariff bill recognized both the revenue and protective features of such enactments, over which the country has divided since that date.

It will thus be seen that during this first administration the new government was organized and put in successful operation. We do not, at this distance in time, realize the great work this necessitated. No national consciousness had been evolved. Each state felt itself independent in a sense now long outgrown. From all the history of the times, it would seem that Washington only, of all the statesmen of the day, could have exerted the necessary influence to guide the new government through the many difficulties confronting it, shape its general policy and start it forward on its career of development.

Questions

When did your state enter the Union? In what presidential election did it first take part?

How do they determine the number of electors to which each state is entitled? (918).

How many electors does your state elect?

How many mints are there in the United States? (1866).

What was the Jay Treaty? (1497).

What do you mean by "Neutrality Proclamation"? (1988).

President Wilson has issued many neutrality proclamations; no one objects. Why did some object to Washington's proclamation?

What did France wish us to do? (See Genet, 1143.) Why did we not do it?

In the long course of events since Washington's time, have the federalists or anti-federalists' views triumphed?

What was the territory north of the Ohio River and west of Virginia called during Washington's administration?

What state claimed that territory south of Tennessee?

ADAMS

1797 1801

ALIEN and SEDITION LAWS

KENTUCKY and VIRGINIA RESOLUTIONS

1799

THE DEATH OF WASHINGTON

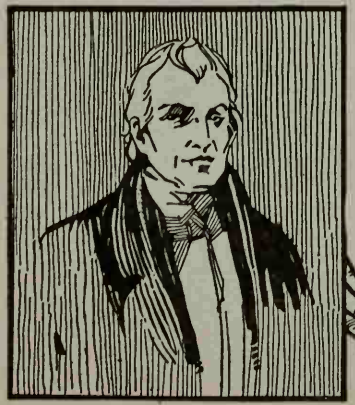
X

Y

Z

THE X Y Z PAPERS

JOHN MARSHALL
CHIEF JUSTICE



TREATY WITH FRANCE

CAPTURE OF THE FRENCH SHIP "LA VENGEANCE"

JOHN ADAMS (15)

Presidential Convention.—The constitution provides for an electoral college which was supposed to meet and consider among themselves the men best fitted for the offices of president and vice-president. Washington was the only man considered for president in the first two administrations. Two parties had made their appearance, and in preparing for the third presidential election the germ of a party convention is noted. The members of congress of each of the two parties held conferences in which they agreed upon their candidates. In the ensuing election one elector presumed to exercise his theoretical right and voted for Jefferson, though elected as a supporter of Adams. This raised such a storm of protest that presidential electors since then have recognized that they are to carry out the wishes of others, not think for them.

The Cabinet.—The Cabinet assumed its modern form in this administration. Mr. Adams made the mistake of retaining in office the Cabinet left by Washington, and during most of his administration his views met with the secret or open opposition of his Cabinet. He corrected this state of affairs late in his administration. Since then no president has tolerated in his Cabinet one not a supporter of his policy.

The Supreme Court.—Adams appointed that great jurist, John Marshall (1782, notice on the graphic) Chief Justice of the United States. His great work consisted in firmly establishing the authority of the nation over the states and upholding the power of the court to pass upon the constitutionality of laws passed by Congress.

Internal Affairs.—In internal affairs this administration was a season of growth and prosperity for the new nation. There was a rapid increase in wealth and population. Party spirit became very pronounced, and the president's policy in regard to relations with France was bitterly assailed by the anti-federalists. This culminated in the Kentucky and Virginia Resolutions (1548), occasioned by the Alien and Sedition Laws (75). Both of these incidents are milestones in our political development. The resolutions mark the beginning of that great struggle over states' right that sixty years later was settled by war.

Foreign Relations.—The relations with France were most critical during nearly all of this administration. No president ever faced graver responsibilities in foreign affairs. Much of the time Mr. Adams was opposed by both parties. War was averted only by the narrowest margin. In fact, an important engagement was fought with the French cruiser La Vengeance (see graphic). We now recognize that Adams was a true statesman, since he concluded a treaty with France, avoided entangling alliance with England and revolutionary leaders in South America. (See "X. Y. Z. Papers," 3177.)

Death of Washington.—Notice, the death of Washington. This marks the completion of a career of singular interest to our country. In a sense, our country is his monument.

Questions

The first nominating conventions were composed of congressmen and senators in conference. How do our present conventions differ? (1964).

If an elector elected to vote for Mr. Wilson had voted for Mr. Hughes would it have been counted for Hughes?

How many members in the president's cabinet now? (438).

If a president disagrees with a member of his cabinet how does he get rid of him? Mention a recent incident of a cabinet officer resigning because not in full accord with the president.

Both Washington and Adams avoided entangling alliances. Would they approve of our part in the world war?

1801-JEFFERSON'S ADMINISTRATION-1809

LOUISIANA PURCHASE AND LEWIS AND CLARK EXPEDITION

—FOREIGN AFFAIRS—
EMBARGO ACT:
MILAN DECREE:
BRITISH ORDERS IN COUNCIL:
CHESAPEAKE FIRED ON:
NON-INTERCOURSE LAW:

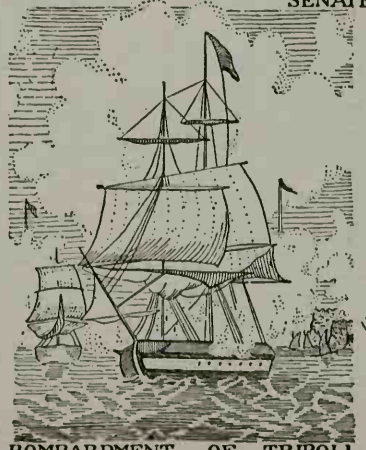
—DOMESTIC AFFAIRS—
FIRST WRITTEN MESSAGE TO CONGRESS:
LOUISIANA PURCHASED:
LEWIS AND CLARK EXPEDITION:
DEATH OF WASHINGTON:
DUEL BETWEEN BURR AND HAMILTON:
IMPORTATION OF SLAVES PROHIBITED:

CABINET AND CONGRESS

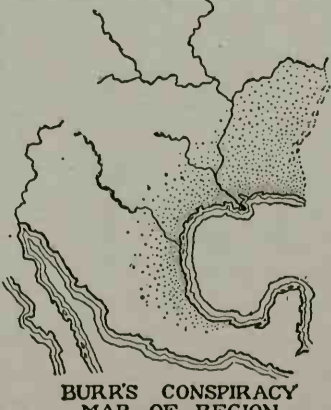
JAMES MADISON	SECT. OF STATE:	LEVI LINCOLN 1801-1805 -ATTY. GENERAL
ALBERT GALLATIN	SECT. OF TREASURY:	JOHN BRECKENRIDGE 1805-1807
BENJAMIN STODDERT	SECT. OF NAVY:	CAESAR A. RODNEY 1807-1809
SENATE 32 : HOUSE 141		

MONTICELLO

MOUNT VERNON TOMB



BOMBARDMENT OF TRIPOLI



BURR'S CONSPIRACY MAP OF REGION

MONUMENT TO ALEXANDER HAMILTON

FULTON'S STEAMBOAT

THOMAS JEFFERSON (1497)

Political Outline.—The administration of Thomas Jefferson marks the beginning of a new era in American politics, since for twelve years the country had been governed according to federalists' idea; a party in opposition to these principles now took the helm of state (see chart in colored section). At first this party was known as the Republican Party. That name simply meant that it was opposed to what was considered the monarchial tendencies of the federalists. The seat of government had been moved to Washington, at that time simply a village on the Potomac (853). Jefferson introduced the custom of sending a written message to congress, instead of appearing before it in person (see graphic).

The Election of 1800.—According to the manner of voting in the electoral college then authorized, of the names voted for, the one receiving the highest number of votes was to be president; the next highest, vice-president. Aaron Burr and Thomas Jefferson received each 73 electoral votes. Both were anti-federalists so the federalists were defeated in any event. The election of a president devolved upon the house of representatives, and on the 36th ballot Jefferson was elected.

Louisiana Purchase.—The Louisiana Purchase (1704) was the most important single event of this administration; in fact, it was one of the most important events in the history of the United States. It doubled the area of the United States, and rendered possible our great development.

Lewis and Clark Expedition (1624). —The importance of that expedition is that on it was based the claim of the United States to the land now included, in Oregon and Washington (2113), and in addition it settled many points in regard to the value and immensity of the new purchase. (See Z. M. Pike.)

Burr's Conspiracy (427).—This was one of the strangest events in the history of the United States. It created a great deal of excitement. The territory affected is shown on the graphic. Had it succeeded, the history of our country might have been different.

Other Important Events.—The duel (870) between Burr and Hamilton (427, 1263), the first step in the long drawn out conflict with slavery, the admission of Ohio (2085), Fulton's great invention (110), the Embargo Act (949), the Non-Intercourse Act (2044), were all important events of this administration.

Foreign Affairs.—The growing tension in relation with Great Britain (see "Milan Decree" 1844) and the war upon the Barbary pirates (2976) resulting in the bombardment of Tripoli (242) were noticeable foreign events.

As a whole this administration was a period of great expansion of the United States in area, wealth and influence. But the nation was yet young, there was not a well developed consciousness of national unity. States regarded the national tie as a very loose one; New York and the New England states considered the advisability of forming a new republic when Jefferson was elected, and questions were debated which finally required the shock of war to settle.

Questions

How did the capital come to be located at Washington? (835).

President Wilson reads his message to congress, is that any better than Jefferson's way? Your reason.

Jefferson and Burr were both democrats, both on the same ticket. It required 36 votes to decide between them. Do you think our history would have been different if Burr had been chosen? (Read over the life of Burr, 427.)

Was your state a part of the Louisiana Purchase?

Suppose France had not sold it to us, and England had taken it, would our history have been different?

1809 MADISON 1817

THE TREATY OF GHENT

SECOND U.S. BANK CHARTER

PRODUCTS OF THE FIRST POWER LOOM

"Don't give up the Ship"

PERRY'S BATTLE ON LAKE ERIE

ACTION BETWEEN CONSTITUTION & GUERRIERE

MACDONOUGH'S VICTORY ON LAKE CHAMPLAIN

4048

JAMES MADISON (1740)

The Election.—Seventeen states participated in the election. The method of choosing the electors was so unsettled that in seven states they were appointed by the legislature; in six, elected by the people on a general ticket; and in four, elected by the people in districts.

Foreign Relations.—Madison inherited from Jefferson's administration serious complications in relations with both England and France, then engaged in the Napoleonic Wars (1956). Each nation struck at American commerce (orders in Council, Berlin and Milan decrees 1844) in an endeavor to injure its opponent. Neither nation had any regard for the rights of America. On the part of England there was a smarting sense of the loss of her colonies, a contemptuous disregard for our rights (3057), and flagrant violations of international laws. (See Chesapeake and Leopard Affair 563.)

War of 1812.—There was but one result of this series of events,—war with England, with its alternate series of events disgraceful and glorious for the American army and navy. (See War of 1812, 3057; Perry's victory, 2215; The Constitution (ship), 691; James Lawrence, 1603; Battle of New Orleans, 2014.)

The Hartford Convention (1280).—This was one of the least creditable events in American history. Its peculiar significance was the thinly veiled threats of secession on the part of the States represented in the convention. It was the New England analogue to the Kentucky and Virginia resolution. Together, those incidents show how feeble was the national consciousness. State rights and duties were placed above national rights and duties. They were milestones on the way to civil war then fifty years distant.

Close of the First Period.—Madison's administration closes the first period of political development. Three of its four presidents served eight years each, each of these three was a Virginian. The first two were federalists, though party lines were not drawn in Washington's administrations. The Republican Party, under the lead of Jefferson, started with anti-federalists principles. At the close of Madison's administration they had adopted as their own the principal federalists' theories so that at the close of this period, as at its beginning, there was virtually but one party in the United States.

Questions

Are electors appointed by the legislature or elected?

What was the difference in the relations of the United States with France and England in 1812 and 1918?

The British ship Leopard fired on and captured the Chesapeake; German submarines sank the Lusitania. Was this last act as great an offense as the former?

Who was it said "Don't give up the ship"? (1603).

Compare the inventions of the power loom (3095) with that of the cotton gin.

What was the treaty of Ghent?

What was the Hartford Convention? (1280).

Suppose some states opposed to the world's war had held a convention to consider it—what do you think our government would have done?

Of the four presidents of the first period, which one had the most important part to fill?

What became of the bank organized by Hamilton? Why did we need a second bank? (239).

Two states were admitted, how do they differ in area? Where did we get the territory of Louisiana? Where Indiana? Mention something in their early history, common to each.

What can you say about the conflict between the constitution and Guerriere?

JAMES MONROE (1897)

(See graphic in colors)

Political Outline.—The disintegration of the old federal party was so complete at the close of Madison's second administration, the Republican Party of Jefferson had adopted as their own so many of federal principles, that there was virtually but one party in the United States. Monroe, also, was a Virginian. That state assumed such a dominating position in our early history that Monroe is said to have been the last of the "Virginia dynasty."

He was nominated by a congressional caucus. There was no formal opposition; in no state was there any real contest; in the majority of the states there was no opposition. Some federal electors were chosen in the northern states, but many of them voted for Monroe. Nineteen states participated in the election. Mr. Monroe considered himself as, like Washington, a "No Party" president. He believed the interest of the nation demanded union, not faction. He revived Washington's practice of visiting, as far as possible, every state of the Union as it then existed. As a consequence, the period of his double administration is known as the "Era of Good Feeling." It is spoken of by some as the "Golden Age," in our political history. Party lines were rubbed out. It was a period of peace and prosperity, and for the first time in our history we had no serious dispute with foreign nations, except for passing difficulties with Spain over Florida, ended by the purchase of Florida in 1819. The admission of five new states will be noticed. The first Seminole Indian war was in Monroe's second administration (1484, 2605).

His Second Election.—His second election was practically unanimous. One elector from New Hampshire voted against him, but it is claimed that he did so that Washington might remain the only president to receive a unanimous election.

Lafayette's Visit.—A pleasing incident in the closing days of this administration was the visit of Lafayette (1576). The nation paid signal honors to one who had been their friend in time of need and rendered a long delayed return for his financial assistance.

Missouri Compromise. — The Missouri Compromise is an event of Monroe's first administration of extreme significance (1879). It was the first serious clash over the question of slavery, which from thence on cast an ever-increasing shadow over our land to be dissipated only by the dread ordeal of war. Probably no congress in our history ever possessed more able debaters than those that considered the issues involved in this compromise. (See "Henry Clay," 614.) This whole question should be carefully studied. (See Missouri Compromise, 1879; read in this connection the Compromise of 1850, and the Kansas-Nebraska Bill.)

The Monroe Doctrine (1898).—This celebrated doctrine, or enunciation of American policy regarding the internal affairs of South American nations was drawn up by Secretary of State Adams, indorsed by the whole cabinet, and formed a part of Monroe's message to congress in 1820. It was a notice to the world that henceforth American protection was thrown around the nations and territories of the New World. This doctrine has grown in importance and significance with every passing decade since it was promulgated and its central thought rendered world wide in its application, was the principal aim sought to be enforced by the entente allies in the world war of 1914.

No event in our political history has been attended with such far reaching and beneficent results to the United States as a nation; to South America as a continent. It was regarded with contemptuous indifference at first. It grew in im-

portance as our nation increased in strength; it served its purpose well, barely escaping the greatest conspiracy ever levelled against it by the results following the pistol shot at Serajevo.

Monroe Doctrine Today.—President Wilson has recently extended the Monroe Doctrine. He proposes to make it world wide in its scope and asserts that the nations of the world should adopt the policy that no nation should seek to extend its policy over any other nation or people, but that every people should be free to determine its own policy, its own way of development, unhindered by others, the little as well as the great and powerful. He continues: "What affects mankind is inevitably our affair as well as the affair of Europe and of Asia." Speaking of our relations with South America, he says "there is now no claim of guardianship between ourselves and South America but a full and honorable association as of partners in the interests of America." This is the final development of the Monroe Doctrine.

The Salient Features.—It is well to notice the salient features of this Golden Age in our political history. The nation made a gain of about 25 per cent in population over the eight millions with which is started. It increased its area by an area larger than all of the present New England states. The number of states grew from 19 to 24. The growth in feeling of national consciousness was very significant. The United States was forging ahead of individual states in importance. This result was in no small measure due to the energetic policy of Chief Justice Marshall. He made the constitution a living vital force in our government, and sustained the authority of the United States over the individual states (1782).

Questions

Explain about the Florida purchase. How much was given for it? Whom did we buy it from? (1047).

Compare it with the Louisiana Purchase, as to price, area purchased, and comparative value to the United States.

How does it compare with Alaska? (50).

What is the value to the United States of Florida? (See graphic discussion of the state.)

Of the five states admitted which one is the largest?

Maine is one of the New England states, why did it have to be "admitted"? Was it ever a part of a territory like the others? (1752). Why is it coupled up with Missouri? (1879).

Why so much discussion about the admission of Missouri? (1879).

Did they ever have slaves in New England? (2661).

Were there ever any slaves in your state?

At the time Missouri was admitted, why were they so anxious to keep the number of free states and slave states the same? (See "Senate" 681.)

Was Monroe the real author of the "Monroe Doctrine"? (See J. Q. Adams 17.)

What was the occasion for its promulgation? (2977).

Did the Monroe Doctrine ever interfere with the ambition of France? (1898).

Do you think Germany ever thought of challenging that doctrine? (See "World's War.")

Who were the Seminole Indians? (2605).

What general was in command of the United States forces? (1484).

Of the five states admitted were any from the Louisiana purchase?

Of what territory were Illinois and Indiana a part? (2061).

How did the United States come in possession of that territory? (2061).

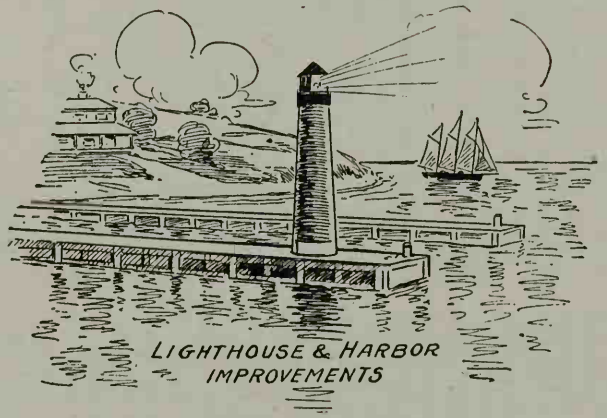
The early history of one of these states is entwined with that of a famous French explorer — which one is it? (1595).

Gen. Pershing when visiting the tomb of Lafayette said, "Lafayette, we are here." What was the significance of his remark?

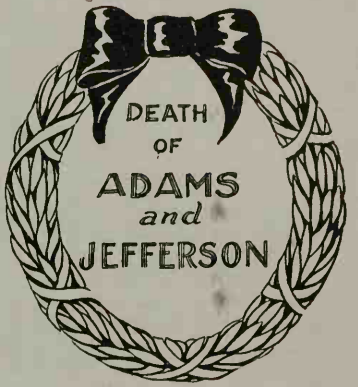
JOHN QUINCY ADAMS

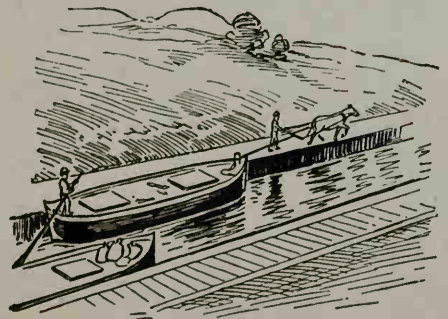
1825 1829

TREATY WITH CREEK INDIANS



LIGHTHOUSE & HARBOR IMPROVEMENTS





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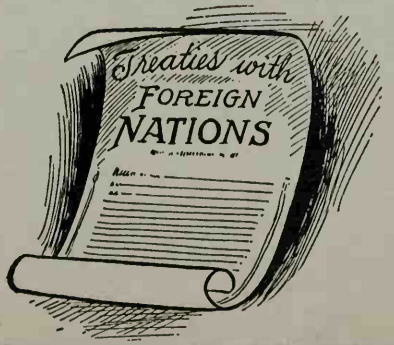
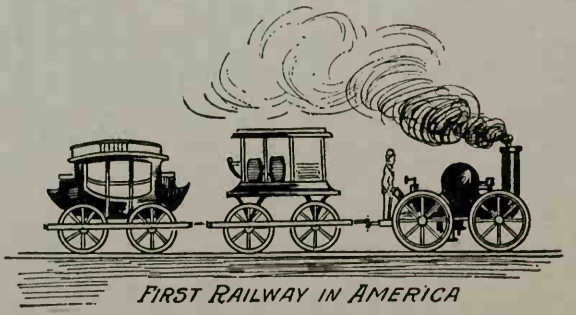




FIRST RAILWAY IN AMERICA

METCHUM.

4052

JOHN QUINCY ADAMS (16)

The election of 1824 was peculiar in several respects. There was but one organized party,—the Republican (see Administration Chart),—but there were sub-parties, so to speak, of the one party that characterized the Era of Good Feeling, because people are bound to differ. There were many men anxious to succeed Mr. Monroe, and the contest centered around persons, not principles.

The Campaign.—At one time in the contest there were sixteen candidates, finally reduced to six. W. H. Crawford (785) was put in nomination by a congressional caucus, and he might be considered the regular nominee. This is the last instance of such a nomination in our political history. The remaining candidates were "favorite sons" of various states. Quite naturally under such circumstances the election was thrown into the House of Representatives. John Quincy Adams of Massachusetts was elected, receiving the votes of thirteen of the twenty-four states that participated in the election.

The National Republican Party.—The Republican Party had been in control of the government for twenty-four years (see chart). The party of this administration called itself the National Republican Party. Its policy indicates a partial return to federal principles, that is it favored a broad construction of the constitution and the growth of the centralized power of the nation over the individual states. (See Political Parties.)

Internal Improvements.—Notice on the graphic the construction of lighthouses and harbor improvements. The administration was ardently in favor of such improvements at the expense of the general government. The opposition opposed what they considered the extravagance of the party in power. That question has been raised in every administration since that date.

Treaty with the Creeks (738).—This was a treaty with one of the most celebrated Indian confederacies of our history. By the terms of the treaty the Indians ceded a large part of their territory east of the Mississippi. In the European war, some of the descendants of these tribes fought under General Pershing in Europe.

Commercial Treaties.—The activities of the administration in foreign affairs were evidenced in commercial treaties with foreign nations (2923). More treaties of this nature were negotiated during this administration than in thirty-six years preceding.

Erie Canal.—There are two events depicted on the graphic that mark important milestones in industrial development. The Erie Canal (969) was of great importance. It was an artery of commerce. It had a great influence in the settlement of the Northwest Territory (see graphic discussion of the states formed out of the Northewst Territory). This canal, greatly enlarged, seems destined to play an important part in the industrial age now dawning. (See graphic discussion of New York.)

Death of Adams and Jefferson.—On the graphic of the first Adams, we noted the death of Washington. On this graphic, note the death of John Adams and Thomas Jefferson. They both died July 4, 1826. The first fifty years of our history was then past.

Questions

Do you think the fact that the two Adamses were from New England, all the other presidents from Virginia, had anything to do with the fact that they were given but one term each?

Did the Cumberland Road help dedevelopment in the Ohio Valley? (1966) (Consider the fact that it furnished a good road into Ohio.) We have in this administration the beginning of railroads, canals and good roads—what department of human activity do they all serve? (2919).

ANDREW JACKSON (1484)

The administration of Andrew Jackson has been made the subject of an exhaustive historical study (see History P. 4027). Review that study. Note the graphic of his administration in the colored section following, see also the administration chart. We shall make brief explanation of the graphic which we urge students to examine with care and thus visualize the principal events of this important administration that marks the rise to power of one of the great political parties of today and the opening of a new era in our history (see Political Parties).

Andrew Jackson enjoyed the glamour that always surrounds the name and person of a successful general (1484). In the electoral college of 1824 he received more votes than Mr. Adams; when the election was thrown into the house he was defeated. His friends maintained that he had been wronged. He was put in nomination to succeed Mr. Adams by the legislature of Tennessee; conventions, caucuses, and public meetings in all parts of the country seconded the nomination. Mr. Adams was not nominated by any conference or legislature; it was accepted as a well known fact that he was a candidate.

The Election. — Twenty-four states participated in the election. The method of selecting electors was rapidly assuming its present form. In only two states —Delaware and South Carolina—were electors appointed by the legislature; in four states only were they elected in districts. Andrew Jackson received more than twice as many electoral votes as Mr. Adams.

New Parties.—The followers of Jackson were organized under the name of the Democratic Party which will be recognized as one of the parties of today (make a study of this party, 2299). In its origin was it federal or anti-federal? How is it now?

New States. — The growth of the Union is shown in the admission of two new states. Notice that one was free, the other a slave state; and recall the efforts made to keep such states equal in number. These states are from different accessions to our country, explain in reference to them.

Texas Recognized.—The recognition of Texas as an independent nation was an important event, destined to lead to an enormous increase in territory. Notice, Texas was an independent nation ten years before it was annexed. Some European diplomats speak of the United States having "seized" Texas. Is that true?

Indian War. — Black Hawk's War was the last important Indian war in territory east of the Mississippi River (314). It served to call attention to the great national resources of Illinois and the West. Most of our Indian troubles were occasioned by the encroachment of the whites on the land of the Indians.

Bureau of Education.—Notice the establishment of the first Board of Education in Massachusetts. Education in the United States should now be studied (670), and the advanced position of Massachusetts in this matter noted (1794), and see Connecticut Reserve in the graphic discussion of Ohio.

Protective Tariff.—On the graphic the tariff is shown as one of the principal events of this administration. The original tariff act was passed in 1828. The issues raised by that act were among the most momentous in our national history. It has been fully considered on previous pages of this volume. In regard to nullification (2069), it should be recalled that this was not a new question in the United States. National consciousness had not yet developed to the extent that the nation took precedence over the state; it required the experience of war to accomplish that result. The great Webster-Hayne debate (1288, 3096) served to more sharply define the issues.

Inventions.—Attention is called to the inventions that were successfully applied in this administration. An invention like the telegraph (192) marks a step in human advance of more importance for good than any petty question of state policy. That invention is one of the greatest ever made, and marks the beginning of the "Electrical Age," that is accomplishing so much for human welfare. The reaping machine (1728, 2411) is one of the quiet inventions not attended by spectacular results but it has had a wonderful influence in developing the agricultural resources of this country. (See Story of Wheat in Illustrated Industries.) It was the first step in inventions and improvements that have resulted in reducing agriculture to a science. Agriculture is the corner stone of national prosperity. This invention deserved to rank with that of the telegraph.

Cumberland Road.—one of the really important events of the times was the extension of the Cumberland Road leading from Cumberland, Maryland, across the southwest corner of Pennsylvania into Ohio. This road was of great importance in opening up the country to settlers. (1966. Notice its influence on settlements in graphic discussion of Ohio, southern Indiana and Illinois.)

Importance. — Jackson's double administration was a period of virile growth in our country's history; and Jackson himself was one of the characters that exerts a dynamic force on his times (1484). Our foreign relations were peaceful. We were increasing rapidly in population and wealth. The emigrants' wagons were already crossing the Mississippi (notice early settlements in Iowa 1460), and the great West was beckoning to the more densely populated East. There is no administration more worthy of study. Some people think there are many points of resemblance between the administration of Andrew Jackson and that of Theodore Roosevelt. Do you see any points of resemblance? If so, point them out.

Questions

What great battle is connected with Jackson's name? (2014).

If in the election of 1824 Jackson received more electoral votes than Mr. Adams why was he not elected? ("Electoral College" 918.)

Twenty-four states participated in the election, how many states did the successful candidate have to carry?

Considering the fact that a small state like Delaware would count as much in such an election as Texas, is it a fair way of electing a president? (Consider the nature of our government.) Do you know any other department of government in which states, no matter what their area or population, exert the same influence? (See "Senate" 681.)

What was the Webster-Hayne debate about?

How was that question settled?

Mention another prominent statesman of that epoch (614).

Was the Democratic Party of Jackson's time the same in political principles as the present Democratic Party? (2299).

Jackson introduced the "Spoils System" into our government; what is meant by that expression? (1484).

How is that regulated now ("Civil Service," 606).

Is the Republican Party of today the same as the party opposed to Jackson? (2302).

Which one of the two states admitted in Jackson's administration was a slave state?

How did Texas come to be an independent state? (2867).

Do you know what public monument commemorates Black Hawk? (See "Laredo Taft," 2816). In Black Hawk's war, two celebrated American citizens were engaged. Who were they? (314).

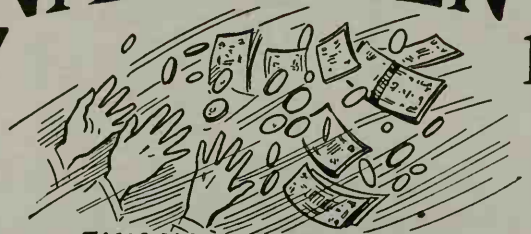
Consider all the great inventions from Washington's administration to Jackson's. Which one do you think the most important?

VAN BUREN

1837

1841

THE SUBTREASURY BILL PASSED 1839-40

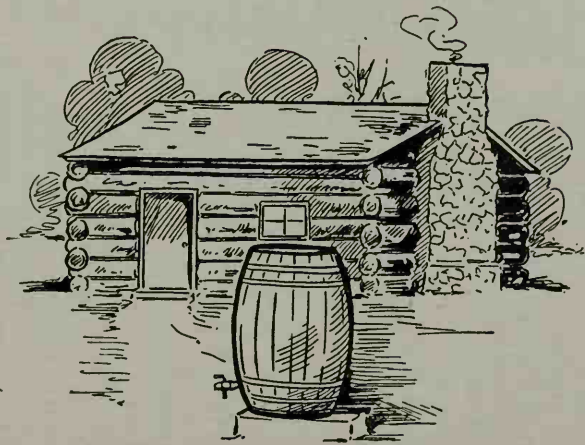


FINANCIAL PANIC 1837

NEW YORK –
NEW JERSEY –
PENNSYLVANIA –
MARYLAND –
CONNECTICUT –
MICHIGAN –
DELAWARE –
OHIO –
KENTUCKY –

POP. – 17,069,453
SIXTH CENSUS

CANADIAN REBELLION 1838



HARD CIDER CAMPAIGN

PATENT OFFICE BURNED

4056

MARTIN VAN BUREN (2998)

Political Outline.—During Jackson's second term a new alignment of parties took place (2301). The administration party was firmly established in the use of the word, Democrat. This was an old term and simply meant "people's party," it had been in fact interchangeable with the word Republican; both terms being used in a sense of opposition to the word federal, having reference to the nation. But when Jackson reorganized the party, Democrat became the distinctive name of his wing of the party.

Whigs. — The National Republican wing of the party, uniting in one all the elements of opposition to the administration, assumed the name of Whigs (2301), the name of a party in early English history opposed to royal pretensions. The name was first heard in America in 1834. It was simply a party in opposition to the administration, therefore during the brief life of the Whigs, the issues were largely personal. (See Administration Chart.)

Nominations.—Van Buren was nominated at a national convention in 1835. As he was the administration candidate, he was the unanimous choice of the convention. The opposition being purely personal held no convention. Three presidential tickets were in the field. Two were nominated at state conventions only, one was nominated by the legislature of Ohio. None exerted more than a local influence. The plan was to divide the electoral votes in an effort to throw the election into the house.

Election. — Twenty-six states took part in the election. In all of the states the electors were elected on general ticket, except in South Carolina, in which state they were appointed by the legislature. This remained the case in South Carolina until that state was re-admitted into the Union after the Civil War.

Financial Panic. — Van Buren was the heir of a financial condition for which he was in no way responsible (see 238, 2155, 2998). The panic of 1837 was probably the most severe of any we ever experienced. This led to the establishment of a Sub-treasury (not fully established until the succeeding administration), which subsequently became the Treasury Department (2922).

Census of 1840.—Notice the population of the United States as shown by the census of 1840. In fifty years' time the population had increased from a little less than four million to over seventeen million. Has the relative growth in poplation increased or decreased since that time? (See 533.)

Hard Cider Campaign.—The significance of the log cabin and barrel of cider can be understood by consulting this subject on page 1271. (See following administration.)

Canadian Rebellion (484).—The Rebellion in Canada was of importance to the United States because it involved us in a controversy with Canada over the fact that some of the forces concerned were organized in the United States. Friction between the United States and Canada growing out of this abuse of neutrality and the boundary dispute with Canada was allayed by the Webster-Ashburton Treaty of 1842 (3097).

Questions

What is a financial panic? (2155).

Why was the administration opposed to U. S. Bank? (239).

Do we have National Banks now? (240).

What modification of our currency laws has recently been put in force? (240).

Do our present state banks issue money?

In reality what one thing is money the world over? (1892).

Is a silver dollar real money or representative money?

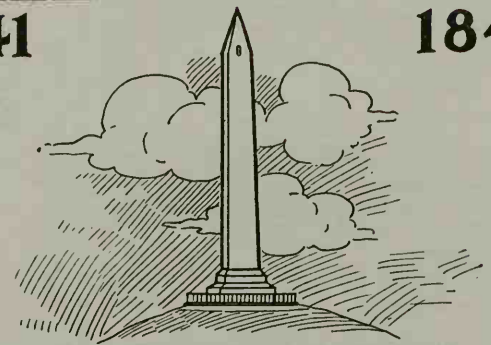
How about a greenback?

How often is a census taken? (533).

HARRISON & TYLER

1841 1845

TREATY WITH CHINESE GOVERNMENT 1843



BUNKER HILL MONUMENT 1843

WEBSTER-ASHBURTON TREATY 1842

FLORIDA ADMITTED 1845

DORR REBELLION 1842

TEXAS ANNEXED 1845

4058

HARRISON AND TYLER (1277 and 2947)

Political Outline. — The campaign of 1840, resulting in the election of William Henry Harrison as president and John Tyler as vice-president, was the most interesting and spectacular campaign the country had ever seen. It introduced the feature of torch light processions and a whirlwind campaign. (See "Hard Cider Campaign" 1271.)

Nomination. — There was no platform adopted at the Whig convention that nominated Harrison. He was simply an opposition candidate, selected as being the one best fitted to gather to his standard all the elements opposed to the Democratic administration. The Democratic convention that re-nominated Van Buren framed a lengthy platform which contained many re-statements of the doctrine of state rights.

Death of Harrison. — Twenty-six states participated in the election, and the result was a Whig triumph. Gen. Harrison was an old man. He was unable to sustain the load of responsibility thrust upon him. He caught a slight cold the day of his inauguration, and died of pneumonia just a month later; and for the first time in our history the duties of the executive devolved upon the vice-president. It should be remarked that, though Tyler had been elected by the Whigs, still he was not in sympathy with them, he had not been elected on any platform, and he soon aligned himself with the Democratic Party.

Important Events.—The important events of Tyler's administration are represented on the graphic. The treaty with Great Britain (see Webster-Ashburton Treaty, 3097) settled the northeastern boundary of the United States. The Dorr Rebellion (848) in Rhode Island assumed such importance that United States forces were employed to quell it. The treaty with China in 1843 secured for the United States the same treaty right previously granted by China to Great Britain in the matter of trade.

Annexation of Texas.—This was the one event of supreme importance in this administration. In the first place, it led to war with Mexico, which will be considered later (1828). It is also memorable as marking the increasing friction between the free states of the North and the slave states of the South.

Questions

What is a party platform?

Do the political parties put forth a platform now?

Suppose a president is elected on a certain platform, does he have to support it?

From what you have read of the "Hard Cider Campaign" how does it compare with Mr. Wilson's Campaign in 1916.

What do you mean by state rights? (2750).

Were the supporters of state rights federalists or anti-federalists?

What authority now settles questions arising under so-called state rights? (2796).

Florida was admitted, but Texas was "annexed" in Tyler's administration. Why this difference?

Read about the annexation of Texas. Mexico had not recognized the independence of Texas. Was it right to annex it? Many thought not. What do you think?

How many vice-presidents have become presidents by death of the president? Mention them.

Suppose that both the president and vice-president should die, who would become president? (2345).

Was Texas a part of the Louisiana Purchase?

What country claimed it?

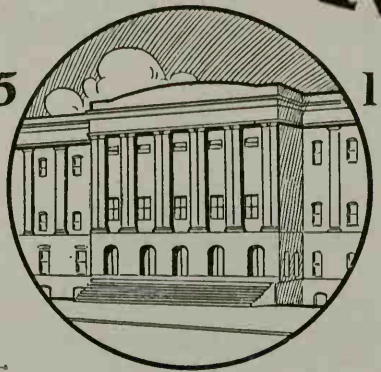
Why did so many people object to the annexation of Texas?

Where is the monument shown on the graphic located? Describe the monument.

POLK

1845 1849

SETTLING THE OREGON BOUNDARY LINE



DEPT. OF THE INTERIOR ESTABLISHED

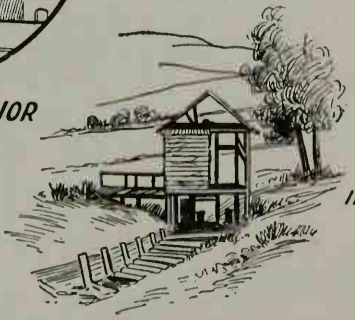
WISCONSIN 1848

IOWA 1846

STATES ADMITTED

TEXAS 1845

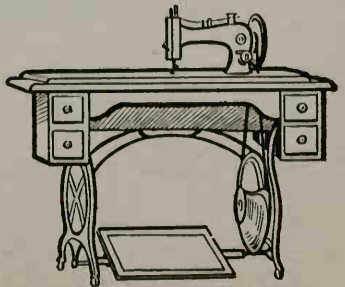
DISCOVERY OF THE USE OF ETHER AS AN ANÆSTHETIC



GOLD DISCOVERED IN CALIFORNIA 1848

MEXICAN WAR – TERRITORY GAINED

ESTABLISHING THE NAVAL ACADEMY AT ANNAPOLIS



INVENTION OF THE SEWING MACHINE

JAMES K. POLK (2305)

Nomination.—Mr. Polk was the first "dark horse" candidate in our political history, there had been no talk of his nomination. When the democratic convention met he was comparatively unknown; but in the struggle that ensued he was finally accepted as the compromise candidate.

The Democrats.—The platform adopted by the Democrats re-affirmed that the nation had no right to interfere in the domestic policy of a state; declared for the annexation of Texas; and insisted that the northern boundary line with Canada should be 54° 40′ north latitude. (See Fifty-four Forty or Fight 1021). The settlement of that question is also noted on the graphic (see 2113).

The Whigs.—Henry Clay was the Whig nominee for president. The short platform adopted by the Whigs is of interest, since we note that it endorsed sound currency and protective tariff,—vital questions of recent times. It also declared for only one term for the president.

The Anti-Slavery Party.—It is of great interest to note the appearance of an anti-slavery party (see Free Soil Party, 2302). The formation of this party was symptomatic of the times, and pointed in no uncertain terms to the rapidly approaching struggle.

Mexican War.—The great event of Mr. Polk's administration was the war with Mexico; this result followed, almost as a matter of course, the annexation of Texas and its admission to the Union. It is fully considered elsewhere (1828). The treaty of Guadalupe-Hidalgo (represented on the graphic) terminated the war. What we are to note is the vast increase in national area (see map in colored section at end of this article). All claims to Texas were relinquished on the part of Mexico; and, in addition, a territory roughly estimated at 600,000 sq. miles was added to the United States. Counting Texas and subsequent purchase, nearly one-third of our present area came to us as a result of that war.

Admission of New States.—The admission of Wisconsin completed the number of states east of the Mississippi River. Thus all of the territory embraced in the original treaty with Great Britain, had been formed into separate states of the Union. Note, also, the admission of Iowa—the fourth state organized out of the Louisiana Purchase.

Invention.—Attention is called to the invention of the first practical sewing machine (2617). That invention marks an important milestone in our industrial development. Two discoveries of this period are of the greatest importance. The use of anesthetics (95) was the first step in modern surgery. The consequence of that discovery has been of incalculable benefit. The discovery of gold in California (454) was followed by a train of events of the utmost importance in the development of the United States.

Institutions.—Notice the organization of the Interior Department. Explain about it (1454) and the Annapolis Naval Academy (1968). This college should be compared with West Point (1845).

Questions

Can the nation interfere in the domestic policy of a state? (Consider the question of Prohibition, 2357.)

What is the difference between a protective tariff and a revenue tariff?

The Whigs in 1845 thought the president should be allowed only one term. Mention one argument for that policy. One against it.

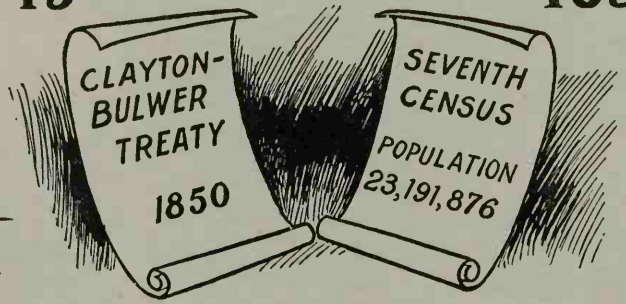
Was the greater part of Continental United States secured by war or purchase? (What do you call the result of the Mexican War?)

The territory secured (not counting Texas) was not greatly different in size from Alaska. Not considering the Mexican War, which was the better bargain of the two?

TAYLOR & FILLMORE

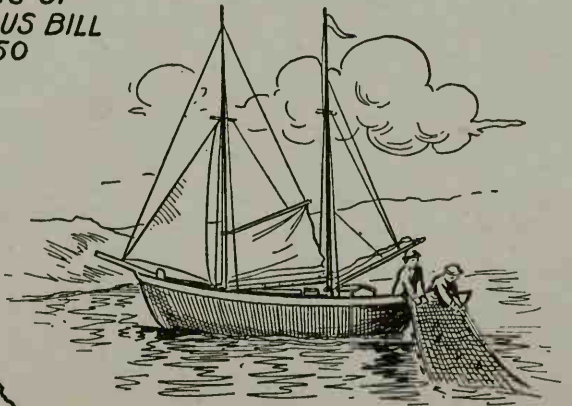
1849 1853

SIGNING OF OMNIBUS BILL 1850

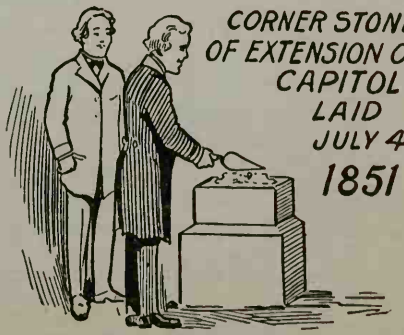


LOWERING POSTAL RATES ON LETTERS BY CONGRESS 1851

CALIFORNIA ADMITTED 1850



FISHERIES DISPUTE WITH GT. BRITAIN 1852



CORNER STONE OF EXTENSION OF CAPITOL LAID JULY 4 1851

C.K.

TAYLOR AND FILLMORE

Zachary Taylor (2835).—When the election of 1848 approached, the political situation of the country was dominated by the great question of slavery, which was not, as yet, directly an issue, but every great question from the annexation of Texas to the election of 1860 was debated—for or against—from its supposed bearing on that question.

The Nomination.—Mr. Taylor was nominated on the strength of his military record (see his life 2835). He seems to have entertained no pronounced political principles. He said he was a Whig but not a radical one.

The Free Soil Party (2302).—The Free Soil Party was composed of those who were dissatisfied with the regular nominees of the Democratic and Whig Parties.

The Day of Election.—As a matter of historical interest, it may be mentioned that the presidential election of 1848 was the first one in which all the states voted on the same day. Before that election, each state voted as it saw fit any day of the thirty-four days preceding the meeting of the electors in December.

Millard Fillmore.—President Taylor died July 9, 1850, and was succeeded by Vice-President Millard Fillmore (1023). For the second time in our history a vice-president became president during the term of office for which he was elected.

Clayton-Bulwer Treaty.—The important events of this administration are shown on the graphic. The Clayton-Bulwer Treaty (615) is the treaty that prevented the United States building a canal across the Isthmus of Panama under its exclusive control.

Admission of California.—The admission of California (454) marks an epoch in our political history. This is one of two states that did not pass through the territorial stage. (Why not?) It adopted a constitution that prohibited slavery, consequently over the question of its admission there was soon waging a political storm of historic interest, since it was a minor disturbance, heralding the great conflict ten years distant.

The Compromise Measures of 1850.—For the time being, the storm was allayed by the Compromise Measures of 1850. (673.) These measures were comprised in a series of eight resolutions. The great debate to which they gave rise was one of the ablest ever heard in this country. These resolutions were finally passed in a series of four separate bills, one of which was known as the Omnibus Bill.

Other Events.—Three events represented on the graphic bear silent witness to the growth of our country. Notice the population disclosed by the census of 1850 (compare with 1840 what percent of increase?); the lowering postal rates, and the extension of the Capitol at Washington.

Fishery Dispute.—This incident should be considered in connection with the Fishery Question in general (1033). The particular phase of the dispute in 1852 had reference to deep sea fishing.

Questions

How did the Clayton-Bulwer Treaty keep us from building a canal? (615).

There are three kinds of treaties. To which class did this treaty belong?

When a state is admitted, what action is taken by Congress? (See "Territory," 286. Congress passes an enabling act.)

What must the territory do? (Consult "Constitution" 690; notice, in state histories, each state adopted a constitution.)

Does Congress have anything to say about the constitution adopted? (See "History of Utah," 2992.)

What caused the rapid settlement of California? (454).

How did California become a part of the United States?

Who is supposed to be signing the Omnibus Bill?

PIERCE

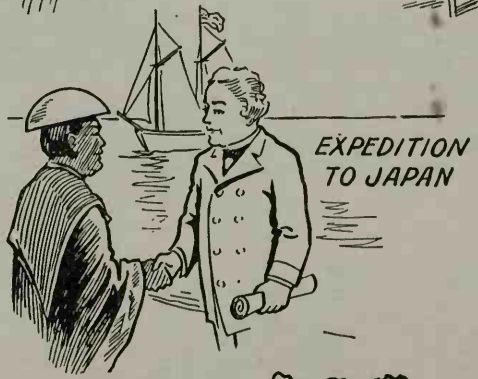
1853 1857

CIVIL WAR IN KANSAS

RECIPROCITY TREATY BETWEEN GREAT BRITAIN AND UNITED STATES

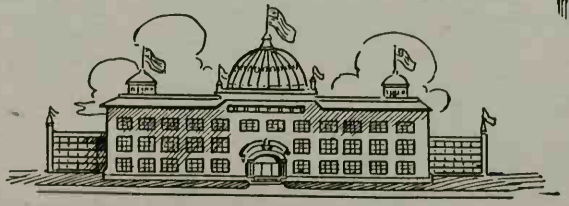
SURVEYS FOR A PACIFIC RAILROAD

EXPEDITION IN SEARCH FOR SIR. JOHN FRANKLIN

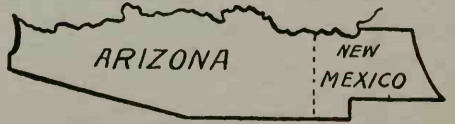


EXPEDITION TO JAPAN

KANSAS-NEBRASKA BILL



CRYSTAL PALACE EXHIBITION, N.Y. 1853



GADSDEN PURCHASE

CK.

FRANKLIN PIERCE (2256)

Political Outline.—The Compromise Measures of 1850 were enthusiastically endorsed by the entire Democratic Party, and a clause was inserted in the platform of 1852 to the effect that the party would oppose any further agitation of the question of slavery. The difficulty was to find a candidate who would not arouse opposition. Franklin Pierce was nominated as a compromise candidate, his name was not mentioned before the 29th ballot, and it required twenty additional ballots to nominate him.

The Party.—The Whigs were torn by internal dissensions. The Compromise Measures were favored by the Southern wing of the party only, the Northern wing opposed them. The convention finally nominated General Scott (2585). The platform also accepted the Compromise Measures and deprecated all further agitation of the question thus settled.

The Free Soil Party.—The Free Soil Party also had a ticket in the field. This party again enunciated as part of its platform that there should be no more slave states; it opposed all of the Compromise Measures; and demanded the repeal of the Fugitive Slave Law.

Kansas-Nebraska Bill.—The Kansas-Nebraska bill was the most significant event of the administration (1538, 2927). In effect, it was the repeal of the Missouri Compromise (see graphic discussion of Monroe).

Civil War in Kansas.—Civil war in Kansas was the immediate result of the Kansas-Nebraska Bill,—one of the minor storms preceding the great conflict of 1861-65. (See 1536, John Brown; 396.) Compare this outbreak with Dorr's Rebellion in Rhode Island (848).

Reciprocity Treaty with Great Britain.—This was one of several reciprocity treaties with Great Britain concerning Canada (484). This treaty, for the time being, ended the fishery dispute of 1852. (See Tyler's Administration.)

Other Events.—Perry's Expedition to Japan in 1853 is one of the epochal events in history, but little noted at the time, attended by a train of events of the utmost importance to the world. Modern Japan dates from that expedition (1494). The beginning of surveys for a transcontinental railway was the first step in developing the Great West; one of the conquests of peace, exceeding in value the conquests of war (2396). The Crystal Palace Exhibition of 1853 served as an object lesson to the world of the material prosperity and wealth of our country.

The Franklin Expedition.—This was one of the many expeditions sent out to search for the lost Arctic explorer, Sir John Franklin (1092).

The Gadsden Purchase (1118, see also map of Territorial Growth in colored section following).—This was the final relinquishment to the United States by Mexico of a section of land in dispute between the two countries.

Questions

What is a reciprocity treaty? (2411).

How did the treaty of 1854 differ from the Clayton-Bulwer treaty?

What is the man looking through? (2871).

Why did we send an expedition to Japan? (1494).

Explain the Gadsden Purchase (1118). Considered as a purchase of real estate, was this as good a bargain as the purchase of Florida? Compare them.

Who are supposed to be the men shaking hands?

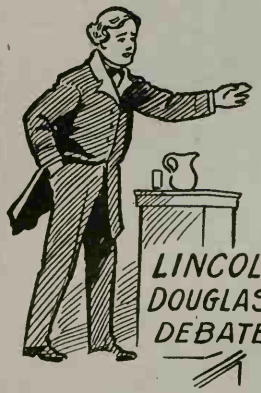
Notice that Perry was in command of the expedition. What other interesting incident can you relate concerning him?

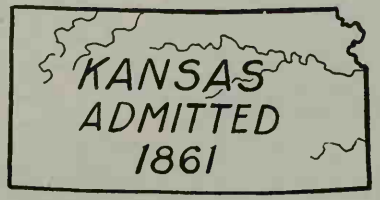
What results if any of a valuable nature have resulted from Polar explorations?

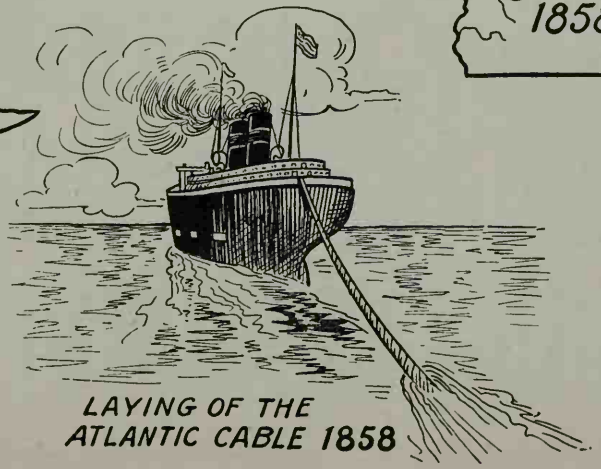
If you were right at the north pole, how fast would the earth be revolving under you?

BUCHANAN

1857 1861







C.K

JAMES BUCHANAN (404)

Political Outline.—The administration of James Buchanan is of interest because it marks the close of the first great period in our national history. The one great issue before the people was rapidly forging to the front. The campaign of 1856 found both the great parties divided on principles, though preserving a semblance of unity. From the broken ranks of the Whig Party, a new party drawing to itself various elements opposed to the old parties took shape, calling itself the Republican Party. It must be understood that is was in no sense the Republican Party of earlier days. That party was anti-federal; the new party was federal.

The Nomination.—The convention that nominated Mr. Buchanan in its platform accepted all the Compromise Measures of 1850; reaffirmed its adherence to the Kentucky and Virginia Resolutions (1548. Strongly state right resolutions. See John Adams Administration); and supported the principles of Squatter Sovereignty (2738).

Republican Party.—The Republican Party insisted that there should be no further extension of slavery; it denied the right of Congress to permit any territory to determine for itself the question of slavery (denied Squatter Sovereignty); and condemned the Kansas-Nebraska Bill (See graphic discussion of Pierce's Administration.)

The Election.—In the ensuing election, while the Democratic Party won, the new Republican Party received a vote not greatly behind the victors. The significant feature was the evident line of cleavage between the states. (An effort should now be made to understand the various causes tending to produce such a result. See 2978.)

Principal Events.—As can be determined from the graphic, virtually all the events of this administration were but minor incidents, significant of a deeper flowing current. The Lincoln-Douglas debate (1643), the John Brown raid (396), the panic of 1857 (2155), were evidence of the uncertain turmoil of the times. The laying of the first Atlantic cable is a milestone of scientific advance (440). The Dred Scott Decision (858), which greatly increased political tension and split the Democratic Party, should be mentioned. (See "Stephen A. Douglas" 859.)

Admission of States.—Kansas was finally admitted in 1861. The struggle over the admission of that state is of great interest historically. The real point at issue was the question of state rights as opposed to national rights. For seventy years, in one form or another, that question had confronted the statesmen of our country. Was the United States a nation, or was it a closely associated group of independent states with power to withdraw from the Union if they so desired?

Questions

Mention an important result of the Lincoln-Douglas debate. 1643.)

What were they debating about?

You notice Oregon and Washington represented, when did that section become definitely a part of the United States? What treaty settled that question?

You notice a river represented. What expedition explored that river? (1624).

Was Oregon a part of the Louisiana Purchase? Minnesota came to us from two different sources. What were they?

Note the financial panic of 1857. What other panic have you noticed in our history? (See Van Buren's Administration.)

What building is represented in John Brown's Raid? Who were the soldiers?

What is a cable? Do we use cables now? Are there any cables in the Pacific Ocean?

What additional means do we now possess of talking with Europe? (2844).

LINCOLN

1861 — 1865

Emancipation Proclamation

Abraham Lincoln

Thirteenth Amendment 1865

DRAFT ACT

Nevada 1864

West Virginia 1863

LINCOLN ASSASSINATED FORD'S THEATER

MASON AND DIXON LINE

RICHMOND FIVE FORKS APPOMATTOX 1865

WHITE OAK ROAD RIO GRANDE

WINCHESTER SAVANNAH NASHVILLE

WILDERNESS 1864 PETERSBURG COLD HARBOR NORTH ANNA

CHATTANOOGA VICKSBURG GETTYSBURG 1863

GALVESTON CHANCELLORSVILLE CHICKAMAUGA

FT. DONELSON ANTIETAM SHILOH

GAINES'S MILL CEDAR MT. FREDERICKSBURG

FAIR OAKS 1862 CROSS KEYS

CARNIFEX FERRY FAIRFAX C.H. BELMONT

BALL'S BLUFF FT. SUMTER

1861 BULL RUN

UNION VICTORIES

CONFEDERATE VICTORIES

MISREPRESENTATION

SLAVERY

STATES' RIGHTS IN DISPUTE

BENEFICIAL RESULTS

A United Nation
Slavery Abolished
General Farming Introduced into the South
Natural Resources of the South Developed

DETRIMENTAL RESULTS

Lives lost 629,000
Cost to North ... $3,500,000,000
Cost to South ... $2,000,000,000
National Debt Increased ... $2,590,066,996

MACKEY

ABRAHAM LINCOLN (1642)

Political Outline. — Nominally in 1860 the issue before the country was slavery; in reality, the issue was whether the United States was a closely knit confederation of states from which states could withdraw if they saw fit, or whether it was a nation, an indissoluble union of states. This issue was as old as the national government itself. The Kentucky Resolutions of 1798 asserted that the "Constitution was a compact to which each state was a party as over against its fellow states," and that each state had the right to determine what was, or was not, an infraction of that compact. These principles had been reaffirmed by both wings of the Democratic Party. The Southern wing of the party, fearing that their right would be placed in jeopardy, were openly threatening to secede from the Union in case of a Republican victory. The Democratic Party was hopelessly split over the question of Kansas. The Northern Democrats nominated Stephen A. Douglas for president; the Southern wing nominated John C. Breckenridge.

The Republican Party nominated Abraham Lincoln. One of the planks of their platform asserted that the great development of this country was due to the Union (not compact) of the states, and denounced all schemes of disunion as a contemplated treason, which the people should sternly rebuke and forever silence. The platforms, Democratic and Republican alike, admitted the authority of each state to conduct its domestic affairs as it saw fit.

War Between the States.—The one great event of Lincoln's administration was of course the war between the states. This has been so fully treated elsewhere that we need only refer to it (607).

The United States, A Nation.—The historian of the future will insist that settling once for all the great question of state and national authority and rights, was the most important result of this war. This completed the great work begun in the Constitutional Convention of 1787.

The Abolition of Slavery. — The Emancipation Proclamation of 1863 and the Thirteenth Amendment to the constitution (both shown on the graphic), together, completed the abolition of slavery in the United States and in all territory subject to its jurisdiction.

Admission of States.—The admission of two states is noted. West Virginia is of special interest. It is an exception in origin to other states in that it was torn by the passions of war from the territory of Virginia (3111). It is interesting to consider the result this exerted on the industrial welfare of Virginia (consult the graphic discussion of West Virginia).

The Draft.—Notice the use of a draft in the Civil War; consult Draft, 852. Notice the vast extension of that principle in the European War of 1914. How is the army of the United States now raised? (See Article "Army" 153.) Is it wise to extend this principle to universal military training? Your reasons?

Questions

Did the Emancipation Proclamation put an end to slavery in all states? (948).

How is an amendment to the constitution adopted? (691).

Did the territory of any other state ever form part of Virginia? (1547).

The Mason and Dixon Line is represented on the graphic. What was it?

How many presidents have been assassinated while in office?

How do you think the battles of the Civil War compare with those of the European War?

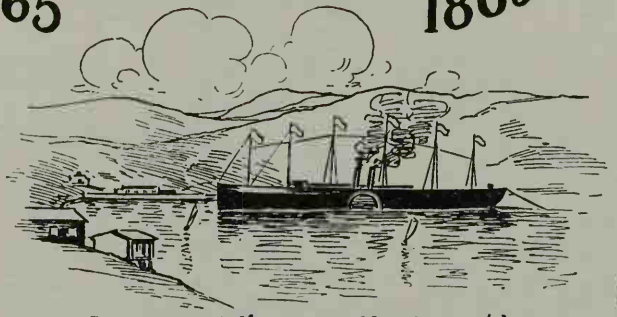
Mention some engines of warfare in the European War unknown at the time of the Civil War.

Four years of warfare then cost five and a half billion dollars, how does it compare with cost in the European War?

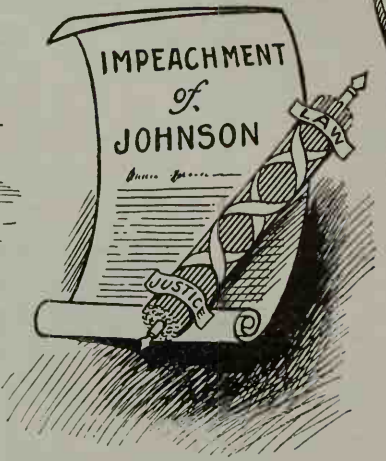
JOHNSON

1865 1869

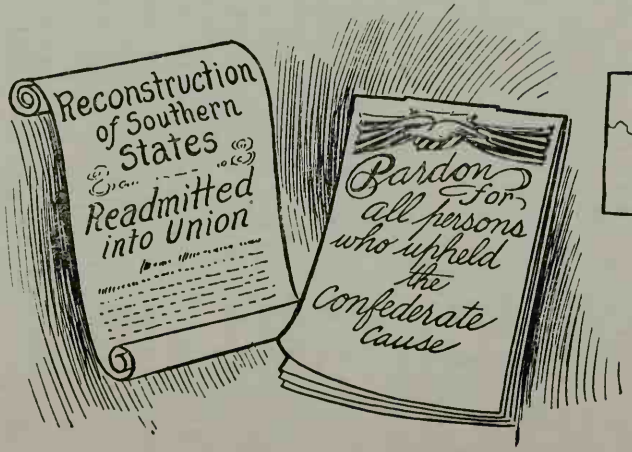
Maximilian Crisis in Mexico



Laying of the 2nd Atlantic Cable by Cyrus W. Field 1866



Purchase From Russia of Alaska 1867



Nebraska Admitted As State 1867

KETCHUM.

4070

ANDREW JOHNSON (1512)

The Election.—The election of 1864 presents many features of interest in the political history of our country. The votes of twenty-five states only were counted. Electoral votes were returned from two other states—Louisiana and Tennessee—in which attempts had been made to organize temporary governments which, however, were not recognized by Congress. Finally the votes of soldiers on duty in the army were counted. The republican ticket headed by Abraham Lincoln and Andrew Johnson was overwhelmingly elected.

Assassination of Lincoln.—The assassination of Lincoln (1644) was an event of the greatest—and saddest—import. It ushered in one of the most agitated periods in our political history. The war was over, but the immensely important questions of reconstruction; currency legislation, made necessary by the vast outlay of the war; and questions of foreign policy—demanded solution. Almost at once, a conflict began between the President and Congress that culminated later in impeachment proceedings.

Andrew Johnson as President.—For the third time since the organization of our government, the Vice-President, on his accession to the Presidency, disappointed the party that elected him and accepted as his own many political principles of the opposite party.

Reconstruction (2412).—All can see that the problem of reconstruction,—the question on what terms the states could reassume their functions as states in the Union,—was one of great difficulty. It was ten years before this problem was solved.

Crisis in Mexico. (See "Maximilian," 1802, "Monroe Doctrine," 1898.)—This crisis resulted in an energetic application of the Monroe Doctrine, therefore of great importance in our history. We will miss the point of our interference if we fail to notice that our objection was not against Maximilian, but against the effort of France to enforce the rule of Maximilian by the aid of a French army.

The Purchase of Alaska (50, and consult graphic discussion of Alaska).—No purchase the United States ever made received the approval of all sections of the country. Even the Louisiana Purchase was condemned by some. Alaska forms no exception to the rule. Considering all that you now know about Alaska was its acquisition wise or not?

Other Events.—The admission of Nebraska in 1867 is of importance since it was the long delayed conclusion of the Kansas-Nebraska bill of Pierce's administration. As that bill was one of the signs of the coming storm, the admission of Nebraska marked the final subsidence of the disturbance. The Amnesty Proclamation of President Johnson was one of the several proclamations, intended to remove political disabilities of those that participated in the war.

Questions

What is it to impeach a public official?

President Johnson vetoed a large number of bills, yet they became laws. Explain how this was possible. (3019).

There was a celebrated impeachment trial in England to which this trial is often compared. What was it? (1281).

One of the articles of impeachment had reference to the Tenure of Office Act. What was that? (2856).

This act violated the customs followed from Washington's time down. It was repealed in 1887. Do you think he should have been impeached?

Recall the Monroe Doctrine. Why did the United States object to the action of France?

How does Alaska compare in area with the Louisian Purchase?

What is the government of Alaska now? (50).

We paid twice as much for Louisiana as for Alaska. Which was the better bargain?

ULYSSES S. GRANT (121)

(See Graphic in Colored Section)

The Nomination and Election.—In the platform adopted by the convention that nominated General Grant, financial issues, destined to occupy the attention of statesmen for the next thirty years, were prominent. In the prosecution of the war a great debt had been created. A part of this debt consisted of treasury notes,—or greenbacks (1893); another, of United States bonds of various issues. The question was as to the standing of greenbacks,—were they, or were they not, money, in the sense that United States bonds could be paid with them? This question resulted in endless disputes a few years later. (See Political Parties, 2303.)

The Election.—General Grant being the general who brought the war to a successful conclusion was a very popular candidate. Three of the Southern states, —Mississippi, Texas and Virginia,—not having complied with the requirements for readmission, did not have a share in the election.

Treaty of Washington (see colored graphic at end of article).—The treaty of Washington is regarded as the most important measure of foreign policy during General Grant's administration. This treaty was negotiated by a joint commission of English and American statesmen. It provided for the settlement of the Alabama claims and fishery disputes (see Fishery questions, 1034; Alabama Claims, 48). The amount allowed the United States for the Alabama claims is also shown on the graphic. This treaty is of special importance because it was a precedent in settling international disputes by arbitration.

Currency Legislature.—Two important currency acts were passed during this administration. One provided for the redemption of specie payment in 1879 (2176). This was an act of the utmost importance because it steadied our currency. Since 1879, all money of the United States, whether standard or token money, coin or paper, has been of equal value (1892). The demonetization of silver in 1873 was an act little noted at the time, but it led to a great political issue twenty years later. Probably no act of Congress has been more discussed in American political history.

Custer's Last Stand (765).—Custer's Last Stand refers to an incident in the last formidable Indian uprising in our country. It was a deplorable incident in our history, to be compared with earlier defeats. It represents however one of the last efforts of the defeated race to retain their lands (see Sitting Bull, 2655; Sioux, 2652).

The Re-election of Grant.—General Grant was re-elected President in 1876, and some events, not shown on the graphic (for lack of space) should be noted. All the states had now re-assumed their place in the Union, but many troublesome questions remained that required years to settle. The annexation of Santo Domingo was strongly favored by the administration, but was defeated in the senate. That country has only recently become a protectorate of the United States. A beginning in Civil Service Reform was made in this administration (606).

The Greeley Campaign.—For twenty years the Republican Party had elected their candidates by great majorities. The confused field of politics presented in 1876 indicated the growth of opposition and the rise of new issues. We should note the organization of the Greenback Party, (2303) composed of those opposed to the Resumption Act. The opponents to Gen. Grant united on Horace Greeley as a candidate (1231). All the states (37) participated in the election and for the first time in our history all the states chose electors by general election. South Carolina had persisted in

appointing its electors by the legislature down to 1860.

The Union Pacific Railroad (2396).—The Pacific Railroad had been under consideration for nearly twenty years (see graphic Pierce's Administration). All political parties had favored it. Its completion is noted in Grant's administration. This incident is a most important milestone in our development. With the entire West now seamed with railroads, making the trans-continental journey one of a few days time, we do not realize what this railroad then meant to our country.

The Telephone.—The telephone is another instance of an invention not much thought of at first, but one that has grown to enormous proportions, and is now seen to be one of the greatest inventions ever made.

The Virginius Affair.—This event is of importance as a minor incident plainly showing the coming storm in Cuba destined to result in the Spanish-American War twenty-five years later. The Virginius was a vessel flying the American flag, taken near Jamaica, charged with being on a filibustering expedition to aid the Cubans in their revolutionary attempt against Spain. Against the protest of the United States, the captain, crew, and some of the passengers were tried and executed at Santiago de Cuba.

The Centennial Exposition (534).—Just one hundred years had elapsed since the colonies had declared their independence; during that time we passed through several very critical periods in national history. The war had substantially settled the question of solidarity of union, perhaps the greatest problem of all. The exposition was intended to give the world ocular proof of our wealth and standing.

Admission of Colorado (see graphic discussion of Colorado).—The admission of Colorado is noticed. It is often called the Centennial State. Why? Not counting the original states, how many had been admitted in the first century of our existence as a nation?

Questions

Do we have greenbacks now?

What kind of money are they? (1892).

How many are in circulation? (1894).

Are greenbacks legal tender? (2850).

Suppose you had a United States bond and were to take it to the treasury, could it be paid in greenbacks?

Explain about the Alabama affair. (48).

The tribunal that awarded these claims was an arbitration tribunal. Is there any court provided for the settlement of such claims now? (1255).

Which was of greater value in 1875, a dollar in gold or a dollar greenback? Which would you rather have now? Give your reasons for these answers.

Suppose you have a five dollar greenback, but wanted a five dollar gold piece. Could you take the greenback to the U. S. treasury and get it?

Is the silver in a silver dollar worth a dollar?

Who was General Custer? (765).

There was a great scandal in the collection of internal revenue in Grant's administration. What was it? (3119).

What did the Greenback Party desire?

Have we more than one Pacific Railroad now?

Do we need wire to telephone with now?

Which do you think the greater invention, telegraph or telephone?

Is there such a thing as wireless telephony? (2847)

What is a filibustering expedition?

Where is Santiago? What naval battle was fought off that port? (2531).

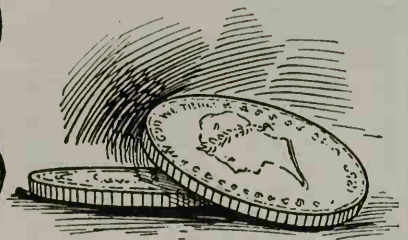
There was an exposition in Pierce's administration, how did that compare with the centennial exposition?

Gen. Grant owed his election largely to his military record. Of how many other presidents of the United States can that be said?

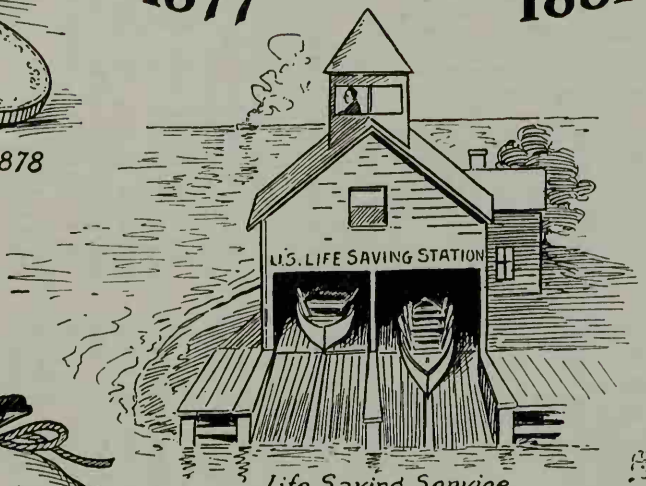
Did Gen. Grant have as great or greater problem than Gen. Pershing?

HAYES

1877 1881

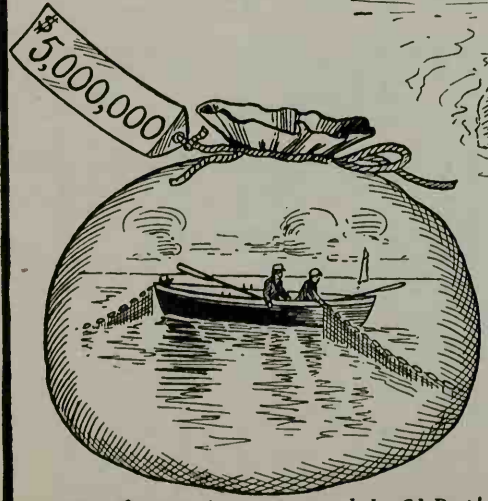


Bland-Allison Act 1878



Life Saving Service Instituted

Resumption of Specie Payments



Halifax Fishery Award to Gt. Britain.

Tour of Gen. Grant Around World

Withdrawal of Troops From The South

4074

R. B. HAYES (1288)

The Election.—The campaign and election were not exciting; but the time intervening between the election day in November 1876 and the conclusion of the electoral contest, the second day of March 1877, was one of the most exciting, tense, political contests in the history of the presidency.

The Disputed Election.—For the first time in the history of our country, the presidency was in doubt; the result being known only two days before the date of the inauguration. The solution of the new problems was of vital importance. In any other republic of the world similar circumstances would probably have led to war. It was a crisis, on the proper settlement of which our national life depended.

The Solution.—The exigencies of the time were met by the appointment of the Electoral Commission that has been described elsewhere (919). As a matter of historic interest, it may be stated that, according to the terms of the act appointing the commission, United States Justice David Davis of Illinois—a democrat—would have been president of the commission, but, as he had just been elected to the senate, it was not deemed proper he should serve, and, accordingly, Justice J. P. Bradley—a republican—was placed on the commission in his stead. Had this exchange not been made, it is quite possible Mr. Tilden, instead of Mr. Hayes, would have been President.

The Important Events.—The most important domestic event was the withdrawal of United States troops from various Southern states (2412). The results showed this was a wise statesmanlike act. The troublous days of reconstruction were over; a new epoch in our history was reached. Two events in reference to our currency legislation are noted. The Bland-Allison Act (318) should be studied in connection with the demonetization of silver (see Graphic Discussion of Grant's administration). The resumption of specie payments in 1879 consisted in carrying out the provision of the act of 1875. The fishery award to Great Britain was an agreement reached by a commission appointed under the terms of the Treaty of Washington (3078), to consider the claims of Great Britain. The Life Saving Service had been organized in 1871 (1633); it was formally instituted in Hayes' administration. This constituted a great forward step on the part of the United States.

General Grant's Tour.—A pleasing incident of the times was the almost royal welcome that greeted Gen. Grant on his tour round the world. Can you recall another instance of an ex-President being received with signal honors abroad? (2477).

Questions

Who was one of the most prominent men of the day when Hayes was nominated? (316).

Can you suggest any other way to settle the dispute than the one finally adopted?

What do you think would have been the result if the dispute had not been settled?

If Justice Bradley had not voted as he did in each case, Tilden would have been elected. Shall we say that Justice Bradley elected Mr. Hayes?

Explain the Bland-Allison Act (318).

Did the resumption of specie payment have anything to do with the hard times of 1873? (2716). Your reasons.

Suppose you have a silver, a gold, and a greenback dollar, is each dollar money? (Read article on money, 1892.)

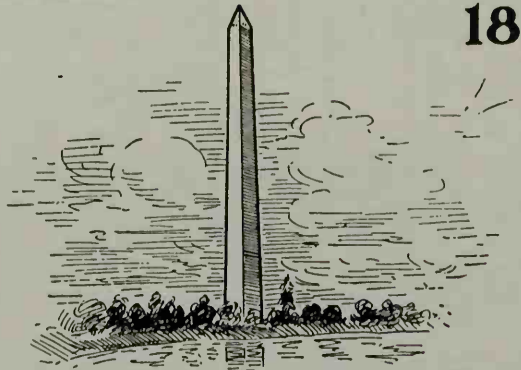
What is the standard of value in the United States?

Why did we pay Great Britain $5,000,000 as a fishery award? (3078 and 1034). (Note, as a war measure all restrictions on fishing in Canada and the United States were removed in February 1918.)

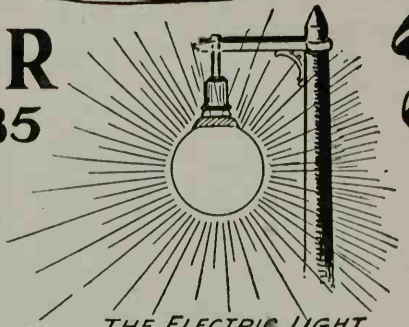
GARFIELD & ARTHUR

1881 1885

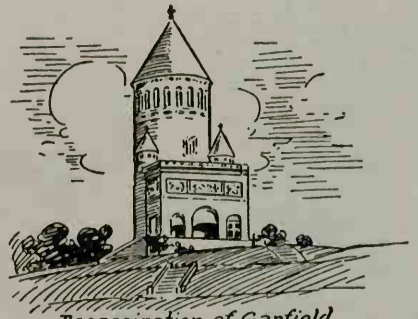
The Phonograph



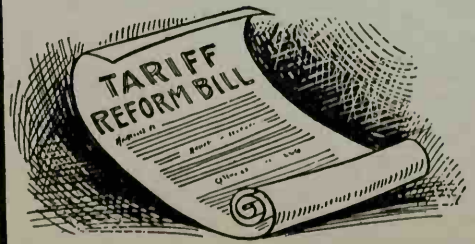
COMPLETION OF THE WASHINGTON MONUMENT
1885



THE ELECTRIC LIGHT



Assassination of Garfield
July 2nd 1881
Garfield Memorial, Cleveland, O.



COMPLETION OF THE BROOKLYN BRIDGE

GARFIELD AND ARTHUR

The Political Outlook.—At the close of Mr. Hayes' administration the country was entering on a prosperous era. There were no really great issues before the country. Gen. Grant had been such a popular President that there was an organized effort to renominate him for a third term. Opposed to him were some of the most able statesmen of the day. James A. Garfield (1129), though a prominent party leader, was not a candidate; but the Republican Convention, finding itself unable to agree upon a candidate, suddenly turned to him and he was nominated on the thirty-sixth ballot. Chester A. Arthur, who had been a collector of the Port of New York, was nominated for Vice-President. The Democratic Party nominated General W. S. Hancock.

The Campaign.—The campaign was not exciting. Attempts were made by means of a forged letter (known as the Morey letter) to influence the voters of California against Mr. Garfield on the ground that he was opposed to restricting Chinese immigration. In the absence of any real issue, the tariff was made to serve.

Assassination of President Garfield.—For the second time in the history of our country the President was assassinated (1129), and for the fourth time a Vice-President became chief executive during the term for which he was elected. Mr. Arthur became President Sept. 20, 1881.

The Phonograph.—The phonograph is an invention worthy of being placed on an administration graphic (2247). Electric light is such a great convenience, and is so extensively used, that we forget it is one of the most recent of great inventions. It was first practically applied in Arthur's administration (926). The Brooklyn Bridge is a triumph of engineering (3026).

Legislative Enactments.—Notice the Civil Service Law of 1883 (606). Agitation for this law began in Grant's administration. Every year we realize the importance of this law. The old rule that to the victors belong the spoils was outgrown. The Chinese Exclusion Bill (586) had also been under consideration for some years. It is regarded as a necessary measure of self protection. The Tariff Act of 1882 marks the application of a new method to determine the proper tariff rates, as this tariff bill was the result of the labors of a commission appointed to study the question of rates.

Monuments.—There are two monuments represented on the graphic, both are to presidents. Washington's monument had been in course of construction for many years (3077). The Garfield Memorial is located in Lake View Cemetery, Cleveland (618).

Questions

Why is our country opposed to a third term?

What is it to be the collector of a port? ("Custom House," 765).

Why do we restrict Chinese immigration? (586).

Have you a musical instrument in your house that depends on the principles of a phonograph? (2248).

How many kinds of electric lights are there? (926). Which one is represented on the graphic? If you have electric lights in your house, what kind of filament are you using?

Why is it necessary to have the bulb a near vacuum?

Is your postmaster protected by the civil service?

What is the technical name for Washington's Monument? (3069 and 3075).

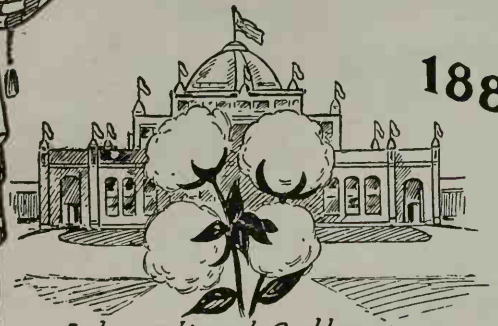
How does Lincoln's Memorial monument compare with Garfield's? (2734).

In Central Park, New York, is an obelisk of a famous Egyptian Queen. Who was she? (3069 and 617).

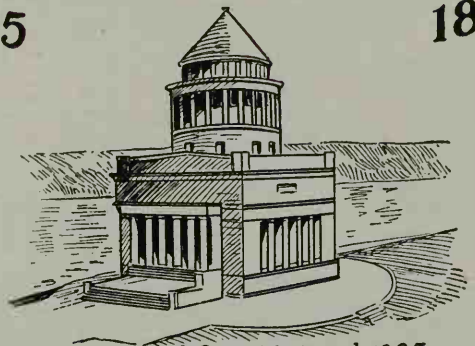
Did you ever see a statue of Garfield? Anything about it to make you think he was left handed?

CLEVELAND

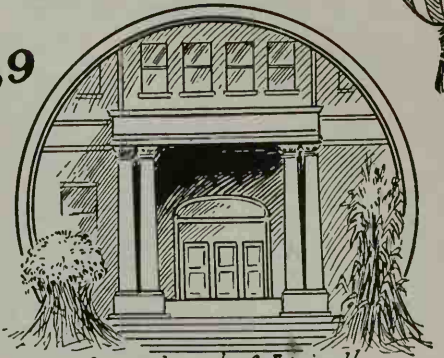
1885 1889



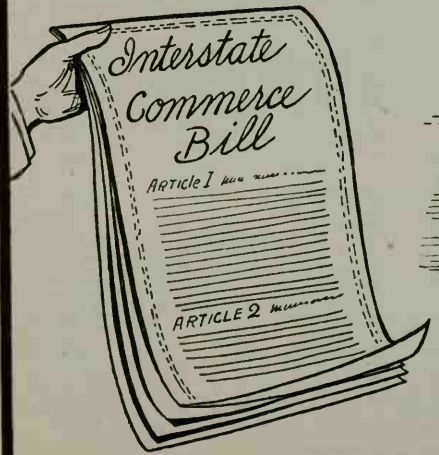
International Cotton Exposition at New Orleans 1884–5

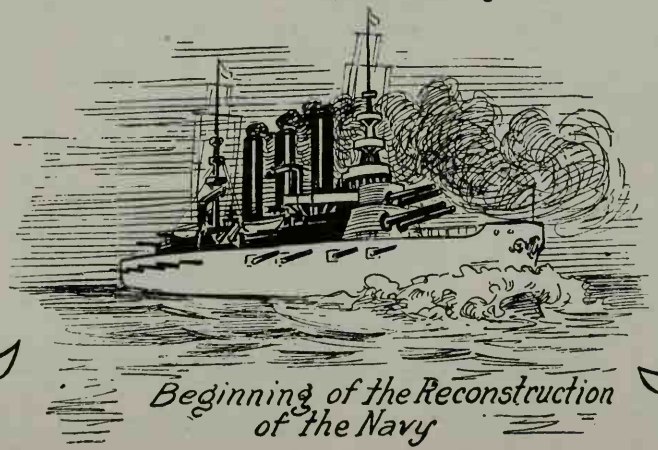


Death of Gen. U.S. Grant 1885
Grant's Tomb, New York City



Department of Agriculture Established 1889





Beginning of the Reconstruction of the Navy

KETCHUM.

4078

GROVER CLEVELAND (620)

The Political Outlook.—The election of Grover Cleveland in 1884 was the first election carried by the Democrats since 1856. All the great issues before the country in war time and reconstruction days had been adjusted. Mr. Cleveland proved a very strong candidate, as a short time previous he had been elected governor of New York by an unprecedented majority and there was dissatisfaction in the Republican Party expressing itself in the Mugwump Movement (1934).

James G. Blaine.—The Republican convention nominated James G. Blaine (316), recognized as one of the eminent statesmen of the day, but he had many political enemies within his own party.

The Election.—There was for a time considerable political excitement following the election, owing to results in New York where the republican ticket was defeated by a small majority. The vote was so close that for several days both parties claimed the electoral vote before it was definitely decided that Mr. Cleveland had carried the state. This experience, in connection with that of 1876 (see "Electoral Commission," 919), led to new legislation by Congress, settling the method of counting the electoral vote. Each state settles all contests arising within the state.

Department of Agriculture.—The Department of Agriculture was organized in 1889 (38) and its secretary became a member of the cabinet. We need only consider the enormous practical value of the work of this department to realize what a great forward step in national development was then taken. Compare this organization affecting our agricultural development with the reconstruction of the navy. Which is of greater importance?

Interstate Commerce.—Bills to regulate interstate commerce were among the most important acts of this administration. The Interstate Commerce Bill was followed by the formation of the Interstate Commerce Commission (1456).

Death of General Grant.—Ex-President Gen. U. S. Grant died in 1885. This is one of the events indicated on the graphic. The building represented is located on Riverside Drive, New York City. It marks the final resting place of one of the greatest Americans (1214). It is well to compare this tomb with those of other great Americans, as Washington, Lincoln, Garfield and McKinley.

Civil Service Reform.—Reference must be made to the Civil Service Bill of Arthur's administration. (See graphic discussion of Arthur's administration also, 606.) Mr. Cleveland extended the list of classified service. One noticeable feature of the reform bill of 1885 was the final repeal of the Tenure of Office Act that caused so much trouble in Johnson's administration. (See graphic discussion of Johnson also, 2856.)

Questions

A Cotton International Exposition is represented on the graphic, recalling an early industrial exposition. (See Graphic Discussion of Pierce's administration.)

What other exposition has been held at New Orleans? (1705).

What river is represented by Gen. Grant's tomb?

Compare that tomb with Washington's Monument. Which is the more appropriate as a memorial? Give your reasons.

In virtually every daily paper you can see some item prepared under the direction of the Department of Agriculture. What is it? (3092).

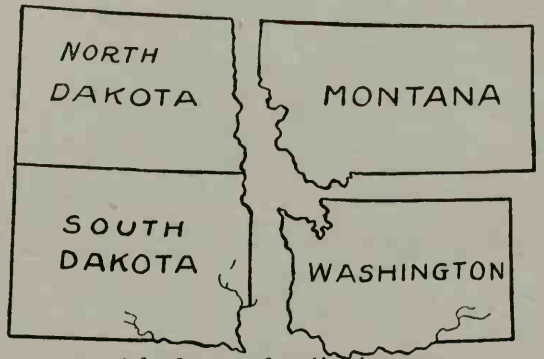
What is the technical name of the ship represented on the graphic? (3060).

What is the difference between state commerce and interstate commerce? The general government now controls the railroads. Does that suspend the interstate commerce commission?

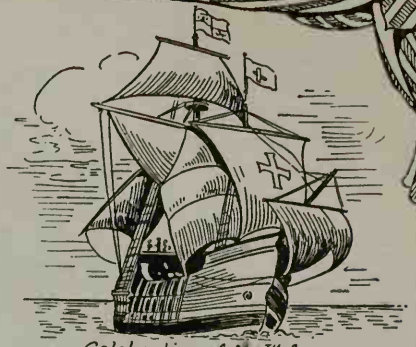
In your home you undoubtedly have articles procured by means of interstate commerce. Give examples of each.

HARRISON
1889 1893

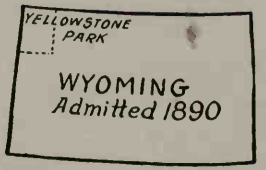
OKLAHOMA TERRITORY OPENED TO SETTLERS

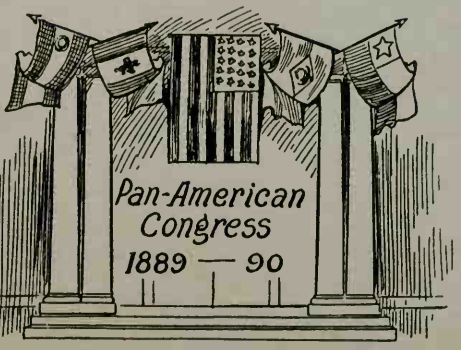


States Admitted 1889

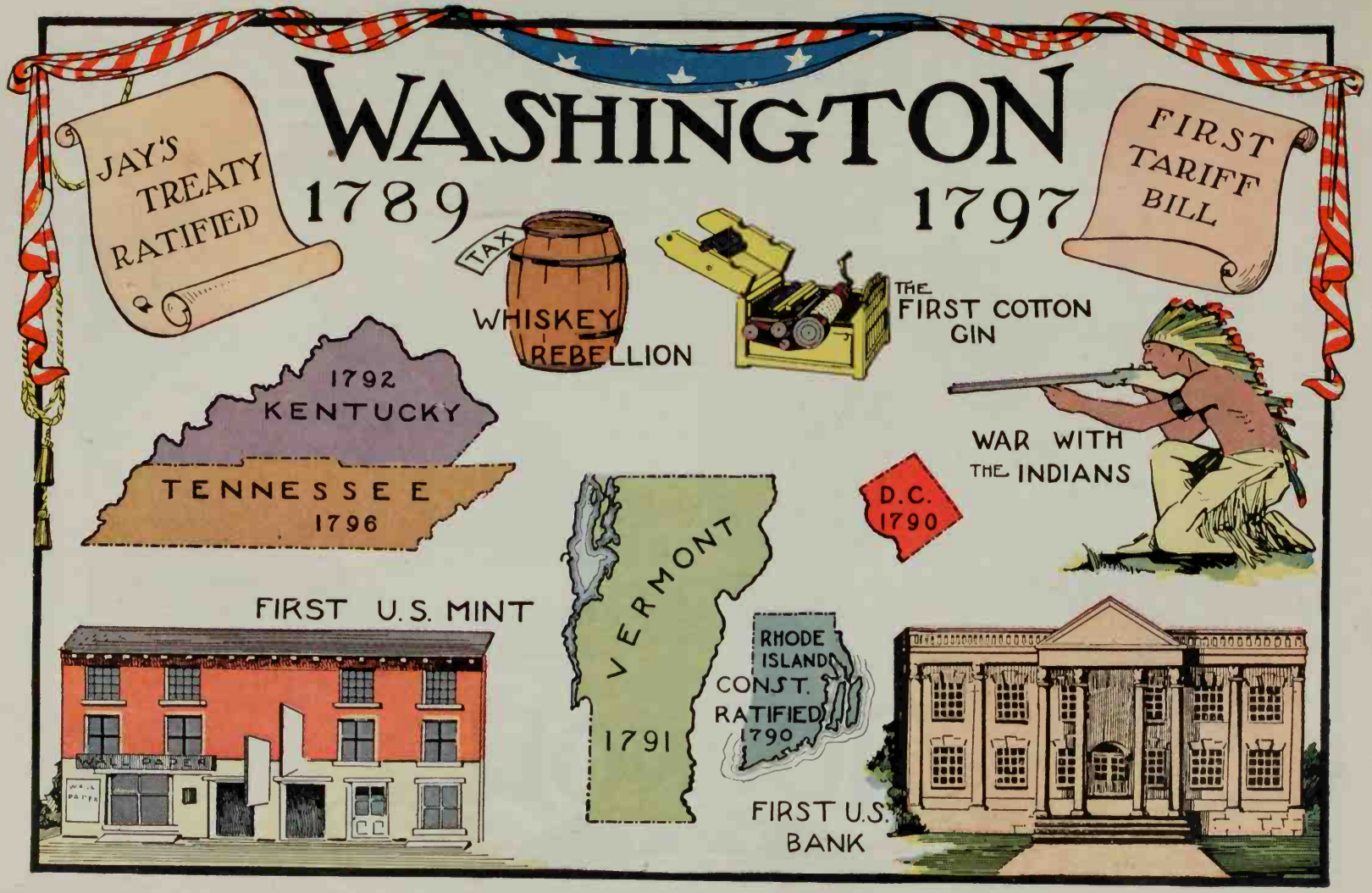


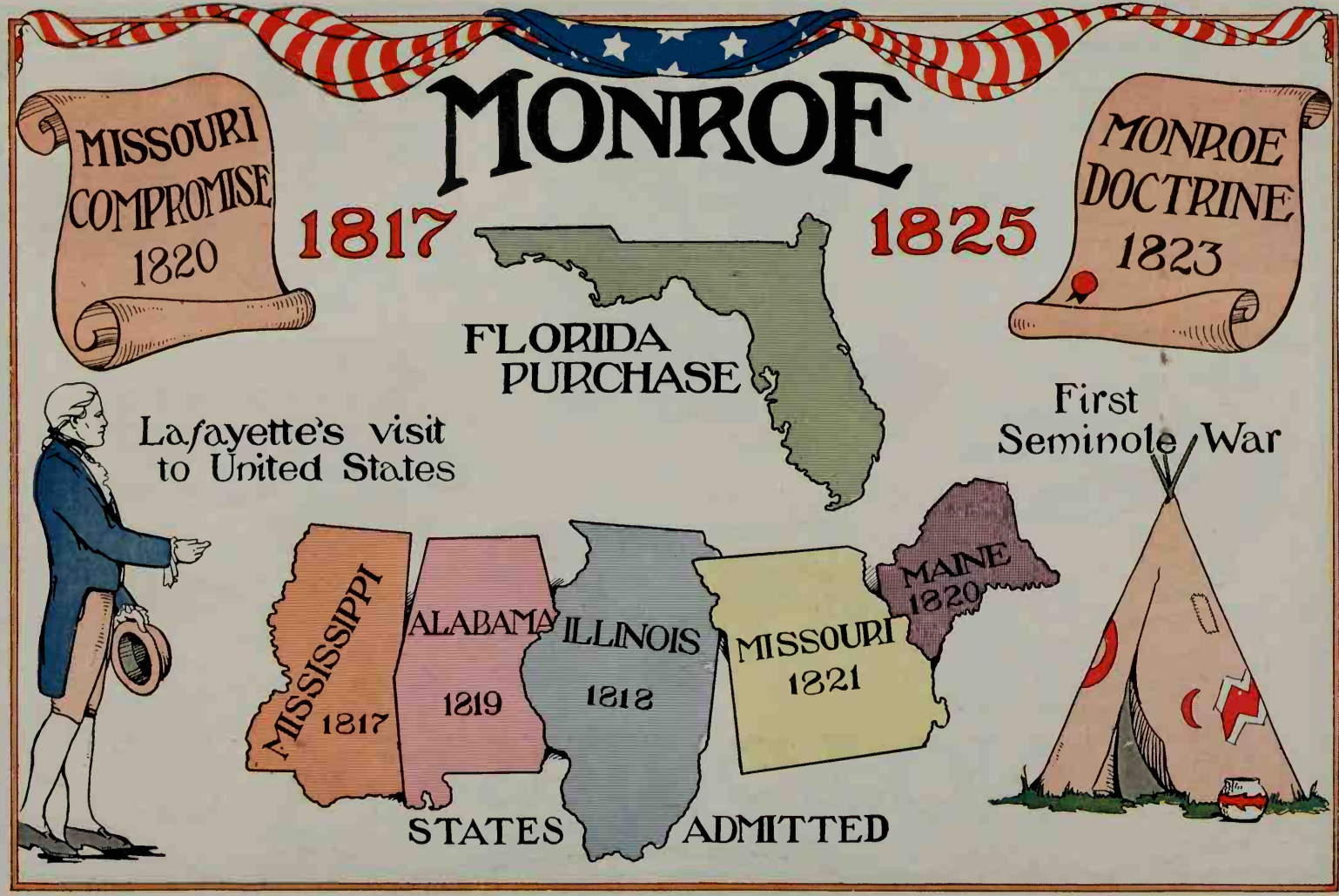
Celebration of 400TH Anniversary of the Discovery of America





4080


WASHINGTON
JAY'S TREATY RATIFIED
1789
FIRST TARIFF BILL
1797
TAX
WHISKEY REBELLION
THE FIRST COTTON GIN
1792 KENTUCKY
TENNESSEE 1796
WAR WITH THE INDIANS
D.C. 1790
VERMONT
1791
RHODE ISLAND CONST. RATIFIED 1790
FIRST U.S. MINT
FIRST U.S. BANK


MONROE
MISSOURI COMPROMISE 1820
1817
1825
MONROE DOCTRINE 1823
FLORIDA PURCHASE
Lafayette's visit to United States
First Seminole War
MISSISSIPPI 1817
ALABAMA 1819
ILLINOIS 1818
MISSOURI 1821
MAINE 1820
STATES ADMITTED

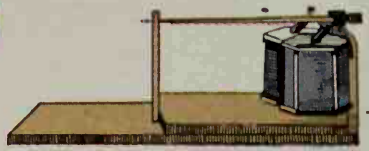
JACKSON

PROTECTIVE TARIFF

1829

1837

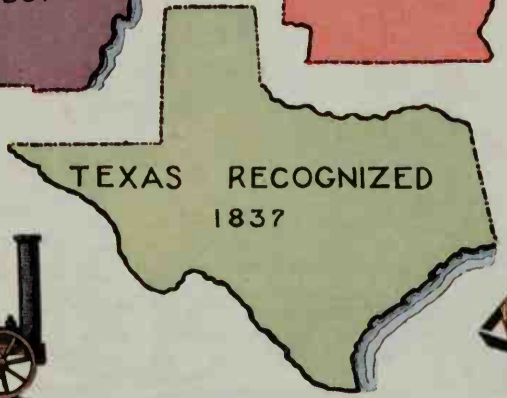
FIRST BOARD OF EDUCATION ESTABLISHED, IN MASSACHUSETTS

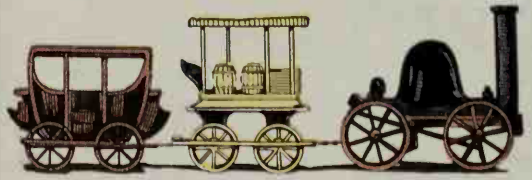


THE FIRST TELEGRAPH

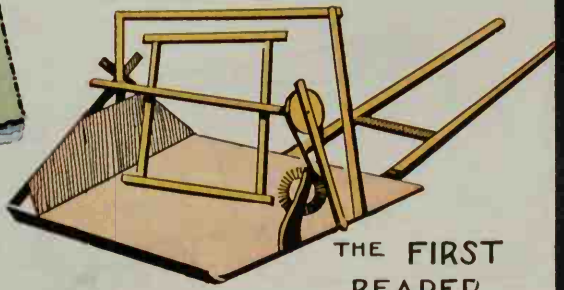
BLACK HAWK WAR

WEBSTER - HAYNE DEBATE





THE FIRST RAILROAD



THE FIRST REAPER

GRANT

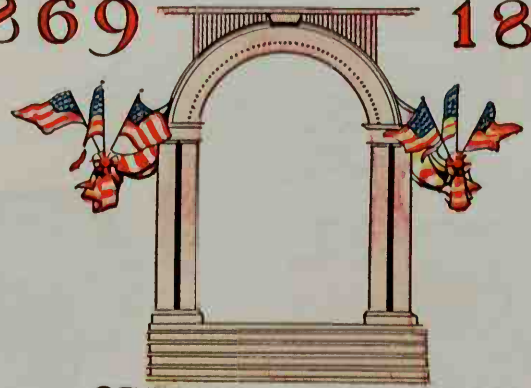
1869 1877

TREATY OF WASHINGTON

RESUMPTION ACT

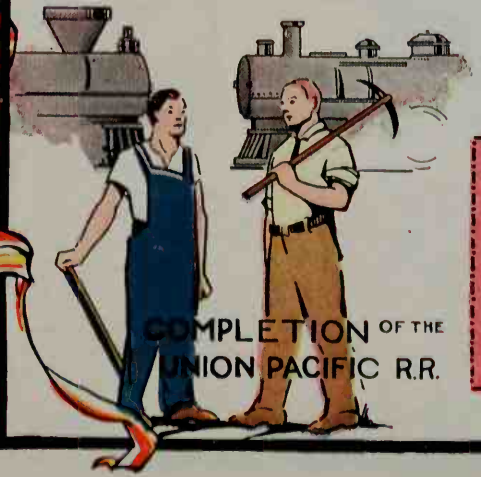
ALABAMA CLAIMS

15,500,000



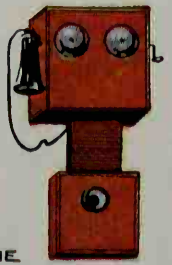
CENTENNIAL EXPOSITION
1776 - 1876

SILVER DEMONETIZED



COMPLETION OF THE UNION PACIFIC R.R.

COLORADO
1876



THE FIRST TELEPHONE

CUSTER'S LAST STAND

ROOSEVELT

1901 — 1908

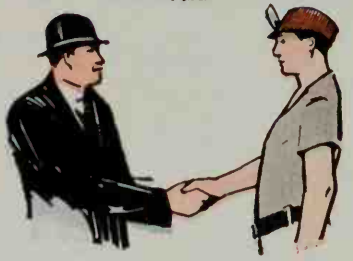
PURE FOOD LAW

U.S. FLEET'S CRUISE AROUND THE WORLD

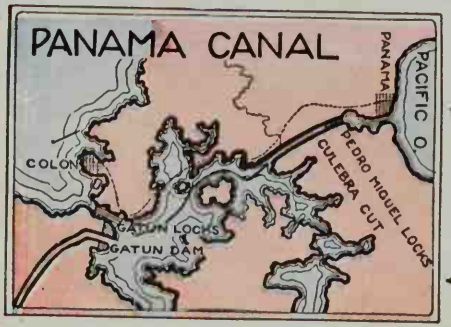
RUSSO-JAP TREATY

OKLAHOMA 1907

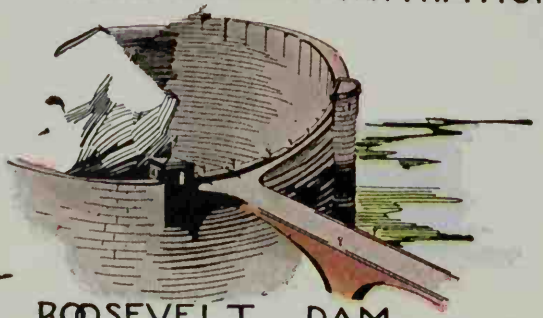
CONSERVATION OF FORESTS



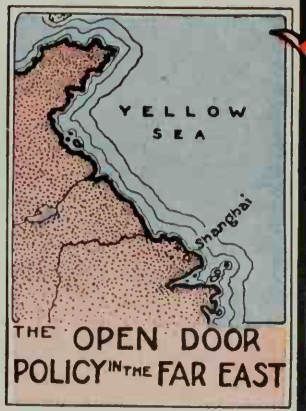
NOBEL PRIZE



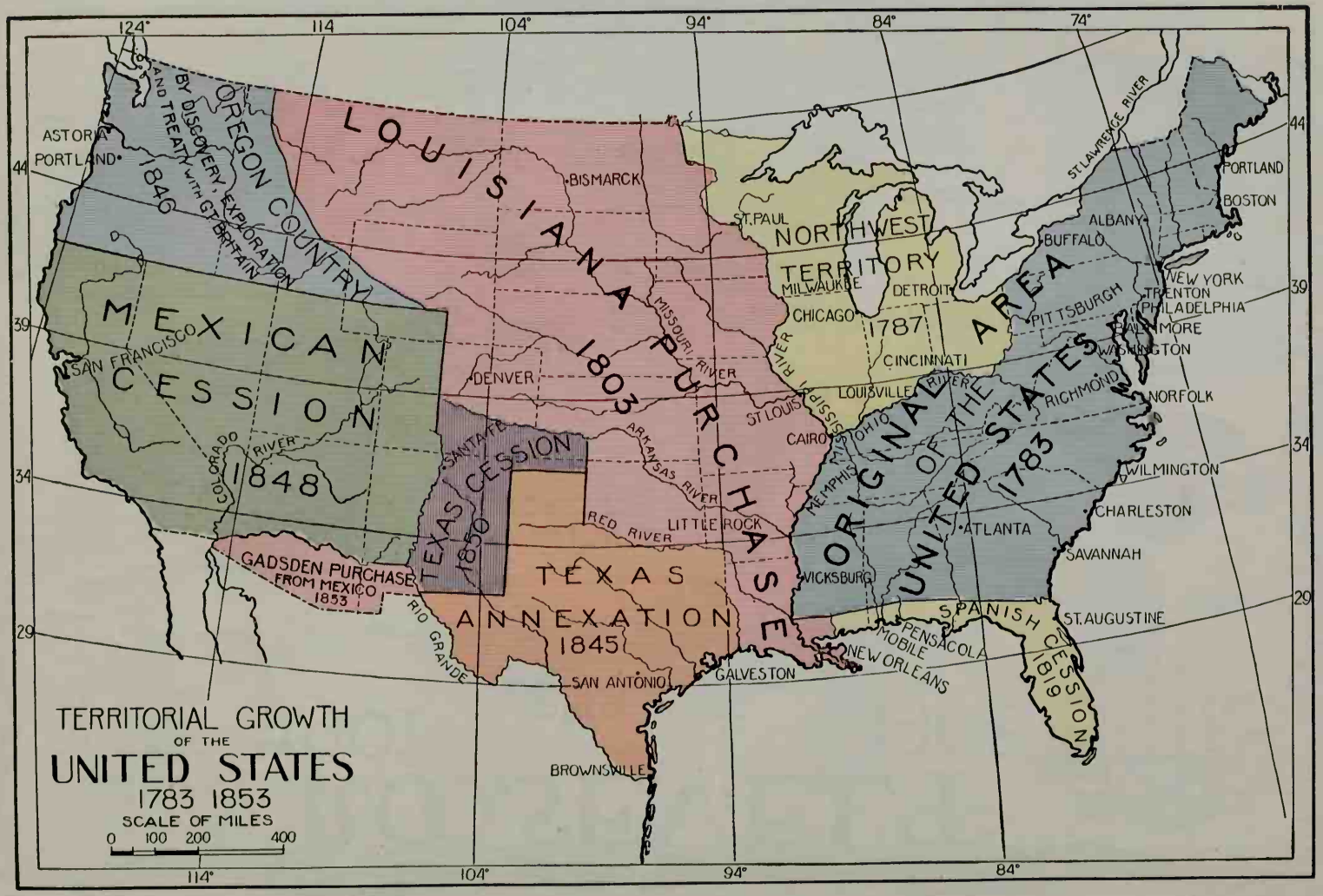
COAL STRIKE ARBITRATION



ROOSEVELT DAM



THE OPEN DOOR POLICY IN THE FAR EAST


124°
114
104°
94°
84°
74°
44
39
34
29
OREGON COUNTRY
BY DISCOVERY, EXPLORATION AND TREATY WITH GT BRITAIN
1846
ASTORIA
PORTLAND
LOUISIANA PURCHASE
1803
BISMARCK
ST. PAUL
NORTHWEST TERRITORY
MILWAUKEE
DETROIT
CHICAGO
1787
BUFFALO
ALBANY
ST. LAWRENCE RIVER
PORTLAND
BOSTON
NEW YORK
TRENTON
PHILADELPHIA
BALTIMORE
WASHINGTON
MEXICAN CESSION
1848
SAN FRANCISCO
DENVER
MISSOURI RIVER
MISSISSIPPI RIVER
ST. LOUIS
CINCINNATI
LOUISVILLE
RICHMOND
NORFOLK
ORIGINAL AREA OF THE UNITED STATES
1783
COLORADO RIVER
SANTA FE
ARKANSAS RIVER
CAIRO
OHIO
MEMPHIS
WILMINGTON
TEXAS CESSION
1850
RED RIVER
LITTLE ROCK
CHARLESTON
ATLANTA
SAVANNAH
GADSDEN PURCHASE FROM MEXICO 1853
TEXAS ANNEXATION 1845
VICKSBURG
ST. AUGUSTINE
SPANISH CESSION 1819
RIO GRANDE
MOBILE
PENSACOLA
NEW ORLEANS
SAN ANTONIO
GALVESTON
BROWNSVILLE
TERRITORIAL GROWTH OF THE UNITED STATES 1783 1853
SCALE OF MILES
0 100 200 400

DISCOVERIES AND EXPLORATIONS

SPAIN	ENGLAND	FRANCE	PORTUGAL
1492—Columbus discovered San Salvador, Cuba and Hayti.			
1493—Columbus founded Isabella on Hayti and discovered Porto Rico and Jamaica.			
1497-99—Vespucius made voyages to South America.	1497—John Cabot discovered North America.		
1498—Columbus visited the northern coast of South America.	1498—Sebastian Cabot (?) explored the Atlantic coast.		1500—Cabral discovered Brazil.
			1501-2—Vespucius, under the flag of Portugal, explored the South American coast from Cape St. Roque to the River La Plata.
1513—Balboa discovered the Pacific Ocean.			
1513—Ponce de Leon visited Florida.			
1517—Cordova explored Yucatan.			
1519-22—Magellan's expedition made the journey around the world.			
1519-21—Cortez conquered Mexico.			
1528—Narvaez explored northwestern Florida.		1524—Verrazano explored the northern Atlantic coast.	
1531—Pizarro conquered Peru.			
1528-36—Cabeza de Vaca traversed northwestern Mexico.			
1540—Coronado explored New Mexico.		1534 and 1535—Cartier ascended the St. Lawrence, on the second voyage reaching the present site of Montreal.	
1541—De Soto discovered the Mississippi River.			
		1555-60—Huguenot colonization was unsuccessfully tried in Brazil.	
1565—Menendez founded St. Augustine.	1562 and 1564—Hawkins began the slave trade in the New World.	1564—Laudonnière made a settlement in Florida, on the St. John's River, the inhabitants of which were massacred in 1565 by Menendez.	
		1567—De Gourgues destroyed several Spanish forts near the St. John's River, killing the occupants.	
	1576—Frobisher sailed around Labrador and through the Hudson Straits.		
	1577-79—Drake sailed around the world.		
	1583—Gilbert established a small settlement in Newfoundland.		
	1587—Raleigh's third expedition made a settlement in North Carolina.		
1605—Juan de Oñate founded Santa Fe.			

COLONIES

VIRGINIA

1606—Virginia Company organized.
1607—Jamestown founded.
1612—Third charter granted.
1612-17—Dale's severe rule.
1619—Introduction of negro slavery; first representative assembly in America.
1622—Indian massacre.
1624—Overthrow of the London Company; Virginia a royal colony.

Maryland

1632—Maryland charter granted.
1634—St. Mary's founded.
1647—Representative assembly established.
1649—Act of Toleration.
1661-75—Prosperity under Calvert.
1691—Maryland a royal colony.
1715—Maryland again a proprietary colony.
1729—Baltimore founded.

Carolina

1653—Albemarle founded.
1663—Grant made to proprietors; division of territory into North and South Carolina.
1670—Charleston founded.
1691—Union of the Carolinas.
1729—North and South Carolina each a separate province.

1642—Berkeley becomes governor.

1675-76—Bacon's Rebellion.
1684—Delegates sent to Albany conference.
1693—William and Mary College founded.

MASSACHUSETTS

1620—Landing of Pilgrims.
1627—Colonists become independent of London shareholders.
1628—Settlement at Salem by colonists under Endicott.
1629—Massachusetts Bay Colony organized.
1630-40—Settlement of Charlestown, Boston, Watertown, etc.

Connecticut

1634—Wethersfield founded.
1635—Windsor founded.
1637—New Haven founded; Pequot War.
1639—Wethersfield, Windsor and Hartford adopt the Connecticut constitution.
1643—Union of New Haven with neighboring towns; organization of representative government.
1662—New Haven incorporated with Connecticut.

Rhode Island

1636—Providence settled by Roger Williams.
1638—Portsmouth founded by followers of Anne Hutchinson.
1639—Newport founded.
1640—Union of Portsmouth and Newport under the name Rhode Island.
1644—Parliament grants a charter providing for the union of Rhode Island and Providence colonies.
1648—Newport and Portsmouth obtain separate charter.

1636—Harvard College founded; Roger Williams banished.
1641—Body of Liberties adopted.
1643—New England Confederacy formed.
1652-58—Maine absorbed by Massachusetts.
1684—Massachusetts charter annulled.

New Hampshire

1679—New Hampshire made a separate royal province.

1685—New Hampshire united with Massachusetts.
1691—Plymouth and Massachusetts Bay United.
1692—Witchcraft delusion.

New Hampshire

1741—New Hampshire separated from Massachusetts.

CONFLICT BETWEEN ENGLAND AND FRANCE FOR SUPREMACY

1689-1697—King William's War. Treaty of Ryswick leaves territory unchanged.
1702-1713—Queen Anne's War. Acadia captured by New England forces in 1710. Treaty of Utrecht gives England Acadia and the Hudson Bay country.
1744-1748—King George's War. Louisburg captured by New England forces and English fleet, in 1745. Treaty of Aix-la-Chapelle makes mutual restoration of all conquests.

COLONIES

NEW YORK

1609—Hudson River explored by Hudson.
1614—Ft. Nassau (Albany) founded.
1615—Establishment of Manhattan Island trading post; New Netherland Company chartered.
1621—Organization of Dutch West India Company.

New Jersey

1623—Ft. Nassau (Gloucester, N. J.) founded.
1664 — New Jersey a proprietary colony under Berkeley and Carteret.
1665 — Elizabeth founded.
1674 — New Jersey divided into East and West Jersey; Carteret takes the eastern part and the Quaker proprietors the western.
1682 — East Jersey purchased by Penn.
1702 — Reunion of the Jerseys as a royal province, ruled by governor of New York.
1738 — New Jersey receives a separate charter.

Delaware

1624—South Company of Sweden chartered.
1631—Swaanendael (Lewes, Del.) founded.
1632 — Settlements destroyed by the Indians.
1638 — Fort Christina (Wilmington, Del.) built.
1643—Swedes build fort on Tinicum Island.
1655—Swedish control of Delaware relinquished.
1664—Delaware under English dominion.
1682 — Delaware added to Pennsylvania.
1703 — Delaware a separate colony.

1624 — Emigration of Walloons.
1626 — Purchase of Manhattan Island and founding of New Amsterdam.
1629—Organization of patroon system.
1655—Dutch conquest of New Sweden.
1664—English conquest of New Netherland; name becomes New York.
1673—Dutch reconquer New York.
1674 — New York returned to England.
1688 — New York united to New England under Andros; Leisler's Revolution in New York.
1690 — First intercolonial assembly at New York.

Pennsylvania

1681 — Grant of land in Pennsylvania to William Penn.
1681-2—Emigration of Quakers to Pennsylvania.
1682 — Penn purchases Delaware from the Duke of York; treaty with the Indians.
1692-4 — Penn dispossessed.
1701—Charter of privileges granted by Penn.
1703 — Delaware made a separate colony.

Georgia

1732—Georgia settled by Oglethorpe.
1733 — Savannah founded.
1736 — Treaty with the Chickasaws.
1749 — Introduction of slavery.
1752—Georgia a royal province.

FRANCE

1603 — Champlain's first voyage to Canada.
1605 — Port Royal settled.
1607 — Port Royal abandoned.
1608 — Champlain's third voyage; founding of Quebec.
1609 — Champlain's invasion of Iroquois territory.
1610 — Port Royal reestablished.
1611 — Montreal founded.
1615 — Lake Huron discovered.
1640 — Jesuits established missions.
1671—St. Lusson at Sault Ste. Marie.
1673—Voyage of Marquette and Joliet down the Mississippi.
1679-82 — La Salle's expedition to the mouth of the Mississippi.
1699—Old Biloxi founded.
1701 — Mobile founded.
1701—Detroit settled.
1718 — New Orleans settled.

CONFLICT BETWEEN ENGLAND AND FRANCE FOR SUPREMACY

1754-1763—French and Indian War.
1754—Ft. Necessity surrendered by Washington.
1755—Defeat of Braddock near Ft. Duquesne.
1758—English defeated at Ticonderoga; English capture Louisburg, Ft. Frontenac and Ft. Duquesne.
1759—English capture Ticonderoga, Crown Point and Ft. Niagara.
1759—Siege and capture of Quebec by Wolfe.
1763—Treaty of Paris—England acquires Canada and Florida; Spain receives Louisiana.

REVOLUTIONARY WAR

AMERICAN

CAUSES AND BEGINNINGS

1761—Writs of Assistance opposed by Otis.
1763—Parsons' Cause, Patrick Henry's plea.
1765—Resistance to enforcement of Stamp Act; assembling of Stamp Act Congress.
1767—Petitions sent to King and Parliament and circular letter to colonial assemblies by Massachusetts Assembly.
1768—Ill treatment of customs officials.
1769—Non-importation policy strengthened.
1772—Destruction of the British ship *Gaspee.*
1772—Committees of Correspondence organized.
1773—Boston Tea Party, Dec. 16.
1774—Assembling of First Continental Congress, Sept. 5.
1774—Assembling of First Massachusetts Provincial Congress.
1775—Organization of militia companies.
1775—Battles of Lexington and Concord, Apr. 19.

BATTLES AND EVENTS

1775—Siege of Boston begun, Apr. 20.
1775—May 10: capture of Ticonderoga by Allen and Arnold and of Crown Point by Warner; Second Continental Congress.
1775—Washington takes command of the army, July 3.
1776—Occupation of Boston, March 17.
1776—Ft. Moultrie, June 28; Moultrie-Clinton and Parker.
1776—Declaration of Independence adopted, July 4.
1776—Trenton, Dec. 26; Washington-Rall.
1777—Princeton, Jan. 3; Washington-Mawhood.
1777—Oriskany, Aug. 6; Herkimer-St. Leger.
1777—Bennington, Aug. 16; Stark and Warner-Baum and Breymann.
1777—Saratoga campaign, Sept. 19-Oct. 17; surrender of Burgoyne; Gates, Arnold and Schuyler-Burgoyne.
1777—Americans at Valley Forge, Dec. 17.
1778—French Alliance concluded, Feb. 6.
1778—Occupation of Philadelphia, June 18.
1779—Capture of Stony Point, July 16; Wayne.
1779—*Bon Homme Richard* and *Serapis,* Sept. 23; Jones-Pearson.
1779—Clark's conquest of the Northwest.
1780—King's Mountain, Oct. 7; Williams-Ferguson.
1781—The Cowpens, Jan. 17; Morgan-Tarleton; surrender of Cornwallis, Oct. 19.
1783—Treaty of peace signed, Sept. 3.

BRITISH

CAUSES AND BEGINNINGS

1645, 1651, 1660—First Navigation Act.
1663—Second Navigation Act passed.
1673—Intercolonial duties imposed.
1694—Intercolonial manufactures suppressed.
1733—Sugar Act passed.
1761—Writs of Assistance issued.
1762—Massachusetts Legislature assessed to equip a fleet to protect the fisheries.
1764—Grenville Resolves passed, whereby colonists were to be taxed to support the British army.
1765—Stamp Act passed.
1767—Townshend Acts passed.
1768—Seizure of the American sloop *Liberty.*
1770—Boston Massacre, March 5.
1774—Five Intolerable Acts passed:
Boston Port Bill; Charter Act; Administration of Justice Act; Quartering Act; Quebec Act.
1774—British troops sent to Boston.

BATTLES AND EVENTS

1775—Bunker Hill, June 17; Howe-Prescott.
1775—Quebec, Dec. 31; Carleton-Arnold and Montgomery.
1776—Long Island, Aug. 27; Howe-Washington.
1776—Americans evacuate New York, Sept. 15.
1776—Capture of forts Washington and Lee, November.
1777—Brandywine Creek, Sept. 11; Howe-Washington.
1777—Occupation of Philadelphia, Sept. 27.
1777—Capture of forts Mercer and Mifflin, November; Howe.
1778—Capture of Savannah, September; Campbell-Howe.
1778—Capture of Charleston, May 12; Clinton and Cornwallis-Lincoln.
1779—American defeat at Savannah, Oct. 9.
1780—Camden, Aug. 16; Cornwallis and Rawdon-Gates.
1781—Guilford Courthouse, March 15; Cornwallis-Greene.
1781—Hobkirk's Hill, Apr. 25; Rawdon-Greene.
1782—Fall of the North ministry.
1783—Treaty of peace signed, Sept. 3.

INDECISIVE BATTLES

1776—White Plains, Oct. 28; Washington-Howe.
1777—Germantown, Oct. 4; Washington-Howe.
1778—Monmouth, June 28; Washington-Clinton.
1781—Eutaw Springs, Sept. 8; Greene-Stuart.

THE CRITICAL PERIOD

1783—Army disbanded, November.
1785—Delegates from Virginia and Maryland meet at Alexandria to consider commercial relations.
1786—Annapolis Convention; Shays's Rebellion.
1787—Ordinance for the government of the Northwest Territory passed.
1787—Constitutional Convention in Philadelphia, May-September.
1787-90—Constitution adopted by the states.
1789—First presidential election.

ADMINISTRATIONS

FEDERALISTS IN CONTROL	OPPOSING PARTY	FOREIGN EVENTS
George Washington—1789-1797 John Adams, vice-president. Senate—26 members; House—65 members. 1789—First tariff bill; Federal judiciary organized. 1790—National debt funded; state debts assumed; national capital located. 1790—First Census; population, 3,929,214. 1791—First United States Bank; Indian War in Ohio; Vermont admitted. 1792—United States Mint established; decimal system of coinage adopted; Kentucky admitted. 1792—Washington reelected; John Adams, vice-president. 1793—Proclamation of Neutrality; cotton gin invented. 1794—Whiskey Insurrection; Indian defeat on the Maumee. 1795—Citizen Genet recalled; Jay's Treaty ratified. 1796—Tennessee admitted.	The Republican Party, the outgrowth of the Anti-Federalist, favored strict construction of the Constitution, opposed Hamilton's financial measures and sympathized with the French Revolutionists.	1789-99 — French Revolution. 1792—French Republic proclaimed. 1793—War between France and England; impressment of American seamen by the British.
John Adams—1797-1801 Thomas Jefferson, vice-president. Senate—32 members; House—105 members. 1798—X Y Z Papers; Alien and Sedition Laws. 1798-99—Kentucky and Virginia Resolutions. 1799—Death of Washington. 1800—Second Census; population, 5,308,483. 1800—Treaty with France. 1801—John Marshall appointed chief justice of the Supreme Court; Judiciary Act.	The Republicans denounced the Alien and Sedition Laws, favored freedom of speech and opposed centralization of power.	1799—Overthrow of the Directory in France; Napoleon made first consul.
REPUBLICANS IN CONTROL		
Thomas Jefferson—1801-1809 Aaron Burr, vice-president. Senate—32 members; House—141 members. 1801—War with the Barbary States begun; financial reform under Gallatin. 1802—Judiciary Act repealed—West Point Military Academy established. 1803—Louisiana Purchase; Ohio admitted. 1803-07—Lewis and Clark Expedition. 1804—Twelfth Amendment ratified. 1804—Jefferson reelected; George Clinton, vice-president. 1804—Death of Hamilton. 1805—Organization of the Territory of Michigan. 1806—Burr's conspiracy; Non-Importation Act. 1807—Fulton's first steamboat launched; Embargo Act; capture of the *Chesapeake*. 1809—Embargo Act repealed; Non-Intercourse Act.	The Federalists opposed Jefferson's dismissal of Federalist officials, Louisiana Purchase, Twelfth Amendment and Embargo Act.	1804—Napoleon, Emperor of the French. 1805—Battle of Trafalgar. 1806—End of the Holy Roman Empire. 1806-07—Napoleon's Continental blockade; Berlin and Milan decrees. 1807—British Orders in Council.

ADMINISTRATIONS

REPUBLICANS IN CONTROL	OPPOSING PARTIES	FOREIGN EVENTS
James Madison—1809-1817 George Clinton, vice-president. Senate—34 members; House—181 members. 1810—Non-Intercourse Act repealed; West Florida annexed; negotiations with France and England over aggressions on American commerce. 1810—Third Census: population, 7,239,881. 1811—Termination of United States Bank charter; battle between the *President* and *Little Belt.* 1812—War declared against Great Britain. 1812—Madison reelected; Elbridge Gerry, vice-president. 1812—Cruise of the *Essex;* battle between the *Constitution* and *Guerrière;* surrender of Detroit; Battle of Queenstown. 1812—Louisiana admitted. 1813—Battle of the River Raisin; capture of the *Chesapeake;* battles of Lake Erie and the Thames. 1813-14—Creek War. 1814—Battles of Chippewa and Lundy's Lane; Battle of Plattsburg and Lake Champlain; capture of Washington. 1814—Treaty of Ghent; Jackson's invasion of Florida; excise tax; first power loom in the United States. 1814-15—Hartford Convention. 1815—Battle of New Orleans. 1816—First protective tariff; second United States Bank chartered; Indiana admitted.	The Federalists opposed Madison's measures for avoiding war, as well as the War of 1812. They opposed the internal taxes of 1814. They disappeared as a party after the Hartford Convention and were absorbed by the Republicans.	1812—Napoleon's retreat from Moscow. 1813—Napoleon defeated at Leipsic. 1814—Napoleon banished to Elba; restoration of the Bourbons. 1814-15—Congress of Vienna. 1815—Battle of Waterloo; Holy Alliance formed.
James Monroe—1817-1825 Daniel Tompkins, vice-president. Senate—42 members; House—213 members. 1817—Mississippi admitted. 1818—Oregon Treaty with England; Illinois admitted; war with the Seminoles. 1819—Florida purchased; Alabama admitted; Dartmouth College Case. 1820—Maine admitted; Missouri Compromise. 1820—Fourth Census; population, 9,638,453. 1820—Monroe reelected; Daniel Tompkins, vice-president. 1821—Missouri admitted. 1823—Promulgation of the Monroe Doctrine. 1824—Tariff legislation; revolt against nomination by caucus, leading to the plan of national nominating conventions. 1825—Treaty with Russia; opening of the Erie Canal; Lafayette's visit to the United States; dedication of Bunker Hill Monument.	There was no organized opposition party, but during this administration there still existed the belief in a broad construction of the Constitution and progressive employment of the government's powers. Out of this spirit developed the party designated as National Republican.	1817-21—Independence of South American states and Mexico. 1821—Death of Napoleon.
NATIONAL REPUBLICANS IN CONTROL		
John Quincy Adams—1825-1829 John C. Calhoun, vice-president. Senate—48 members; House—213 members. 1826—Death of John Adams and Thomas Jefferson. 1827—Treaty with the Creek Indians. 1828—"Tariff of Abominations;" bitter opposition to the tariff in the Southern States.	The opposition party, designated as Democratic-Republican, opposed the growing spirit of nationalism. It was known thereafter as Democratic.	

ADMINISTRATIONS

DEMOCRATS IN CONTROL	OPPOSING PARTIES	FOREIGN EVENTS
Andrew Jackson—1829-1837 John C. Calhoun, vice-president. Senate—48 members; House—240 members. 1829—Inauguration of the Spoils System. 1830—Fifth Census; population, 12,866,020. 1830—French war claims adjusted; Webster-Hayne Debate. 1831-2—Black Hawk War. 1831—First steam locomotive used. 1832—Veto of the bill for rechartering the United States Bank; protective tariff bill; Ordinance of Nullification in South Carolina. 1832—Jackson reelected; Martin Van Buren, vice-president. 1833—Force Bill; compromise tariff bill. 1834—Cherokee lands purchased; McCormick reaper patented. 1835—Seminole War begun; electric telegraph invented. 1836—Arkansas admitted; specie circular issued. 1837—Recognition of independence of Texas; Michigan admitted; Massachusetts State Board of Education organized by Horace Mann.	The opposition, consisting of the National Republicans, the opponents of the Spoils System, and the Southern Democrats incensed by Jackson's attitude toward nullification, organized the Whig Party. The Equal Rights (Loco-Foco) and Anti-Masonic were minor parties.	1830—Independence of Greece acknowledged by the powers. 1832—Reform Bill passed by the English Parliament. 1833—Slavery abolished in British dominions. 1837—Accession of Victoria.
Martin Van Buren—1837-1841 Richard M. Johnson, vice-president. Senate—52 members; House—240 members. 1837—Financial panic. 1840—Adoption of the subtreasury system. 1840—Sixth Census; population, 17,069,453. 1840—Hard Cider Campaign.	The Whigs made opposition to the Democrats their one issue. The opponents of slavery organized the Liberty Party.	1839-42—Opium War between England and China. 1840—Postage stamps introduced into Great Britain.
WHIGS IN CONTROL		
William H. Harrison—1841-1845 John Tyler, vice-president. Senate—52 members; House—223 members. 1841—Death of Harrison; **Tyler, president.** 1841—Independent treasury abolished; veto of two United States Bank bills. 1842—Protective tariff bill; Webster-Ashburton Treaty; Dorr Rebellion in Rhode Island. 1845—Texas annexed; Florida admitted.	The Democrats opposed the protective tariff. They demanded the annexation of Texas and the reoccupation of Oregon.	
DEMOCRATS IN CONTROL		
James K. Polk—1845-1849 George M. Dallas, vice-president. Senate—58 members; House—223 members. 1845—Texas admitted; Annapolis Naval Academy established. 1846—Oregon boundary settled; independent treasury restored; Iowa admitted; ether first used as an anæsthetic; sewing machine invented. 1846—War declared against Mexico; Mexicans defeated by Taylor at Palo Alto and Resaca de la Palma; capture of Santa Fe and Monterey; Wilmot Proviso proposed; conquest of California. 1847—Taylor victorious at Buena Vista; City of Mexico captured by Scott. 1848—Treaty of Guadalupe-Hidalgo; gold discovered in California; Wisconsin admitted. 1849—Department of the interior established.	The Whig, leading opposition party, evaded the slavery question, as did the Democratic. In 1848 was organized the Free-Soil Party, which alone opposed the further extension of slavery, until it was absorbed by the new Republican Party.	1848—Year of revolutions in Europe; republic proclaimed in France.

ADMINISTRATIONS

WHIGS IN CONTROL	OPPOSING PARTIES	FOREIGN EVENTS
Zachary Taylor—1849-1853 Millard Fillmore, vice-president. Senate—62 members; House—237 members. 1850—Seventh Census: population, 23,191,876. 1850—Clayton-Bulwer Treaty. 1850—Death of Taylor; **Fillmore, president.** 1850—Compromise of 1850; California admitted.	The Democrats accepted the Compromise of 1850 as the solution of the slavery issue.	1852—Second Empire established in France.
DEMOCRATS IN CONTROL		
Franklin Pierce—1853-1857 William R. King, vice-president. Senate—62 members; House—237 members. 1853—Gadsden Purchase. 1854—Kansas-Nebraska Bill. 1855-57—Civil War in Kansas. 1857—Financial panic; Dred Scott Decision.	In 1856 the opponents of further extension of slavery united to form the Republican Party.	1853-56—Crimean War. 1857—Sepoy Mutiny in India.
James Buchanan—1857-1861 John C. Breckinridge, vice-president. Senate—66 members; House—243 members. 1858—Lincoln-Douglas debates; Minn. admitted. 1859—John Brown's Raid; Oregon admitted. 1860—Eighth Census: population, 31,443,321. 1860—Lincoln elected; South Carolina secedes. 1861—Confederacy organized; Kansas admitted.	The Republican Party demanded the exclusion of slavery from the territories. The Constitutional-Union Party formulated a negative platform in 1860.	1860—Sicily and Naples added to the kingdom of Victor Emmanuel, King of Sardinia. 1861—Emancipation of the Russian serfs.
REPUBLICANS IN CONTROL		
Abraham Lincoln—1861-1869 Hannibal Hamlin, vice-president. Senate—50 members; House—243 members. 1861—Surrender of Ft. Sumter; call for volunteers; McClellan in command of the Union armies; financial measures; the *Trent* affair. 1861—Chief military events: battles of Big Bethel, Bull Run, Wilson's Creek, Ball's Bluff. 1862—Legal tender, internal revenue, higher tariff, railroad acts; McClellan superseded by Burnside. 1862—Chief military events: forts Henry and Donelson captured; Island No. 10 and New Orleans captured; battle between the *Monitor* and *Merrimac;* Peninsula Campaign; battles of Shiloh, Bull Run (second), Antietam, Fredericksburg, Murfreesboro. 1863—Emancipation Proclamation; Burnside superseded by Hooker; Draft Act and National Banking Law; West Virginia admitted. 1863—Chief military events: battles of Chancellorsville, Gettysburg, Chickamauga, Chattanooga, Lookout Mountain, Missionary Ridge; capture of Vicksburg and Port Hudson. 1864—Grant Union commander; Nevada admitted. 1864—Lincoln reelected; Andrew Johnson, v.-p. 1864—Chief military events: battles of the Wilderness, Spottsylvania Courthouse, North Anna, Cold Harbor; Sherman's march to Atlanta and to the sea; the *Alabama* captured; Sheridan's campaign. 1865—Thirteenth Amendment passed; Hampton Roads Conference; Freedmen's Bureau organized; Richmond evacuated; Lee's surrender. 1865—Lincoln assassinated; **Johnson, president.** 1866—Congressional reconstruction begun; Fourteenth Amendment passed; Atlantic cable laid. 1867—Tenure of Office and Reconstruction acts; Nebraska admitted; purchase of Alaska. 1868—Johnson impeached and acquitted. 1869—Fifteenth Amendment passed.	The radical anti-slavery faction of the Republican Party opposed Lincoln's conduct of affairs. The Democrats condemned his determination to bring about the abolition of slavery. In the campaign of 1868 they condemned the reconstruction policy of the Republicans and favored the payment of war bonds in greenbacks instead of gold.	1861—European nations, except Russia, recognize the belligerency of the Southern States. 1866—Seven Weeks' War between Prussia and Austria. 1867—North German Confederation formed.

ADMINISTRATIONS

REPUBLICANS IN CONTROL	OPPOSING PARTIES	FOREIGN EVENTS
Ulysses S. Grant—1869-1877 Schuyler Colfax, vice-president. Senate—74 members; House—293 members. 1869—First transcontinental railroad completed. 1870—Ninth Census: population, 38,558,371. 1870—Extension of the naturalization laws. 1871—Treaty of Washington; civil service law. 1872—Amnesty act; Alabama Claims settled by arbitration; Crédit Mobilier exposure. 1872—Grant reelected; Henry Wilson, vice-president. 1873—Financial panic; demonetization of silver. 1875—Resumption Act. 1876—Colorado admitted; telephone invented; Centennial Exposition; Custer Massacre.	The Liberal Republicans nominated Horace Greeley in 1872. The Democrats adopted their platform and ratified Greeley's nomination. In 1876 the Democrats made reform their leading issue. The Greenback Party denounced national banks and the payment of bonds in specie.	1870-71—Franco-German War; the French Republic, German Empire and Kingdom of Italy established.
Rutherford B. Hayes—1877-1881 William A. Wheeler, vice-president. Senate—76 members; House—293 members. 1877—Railroad strike; Federal troops withdrawn from the South. 1878—Bland-Allison Act. 1879—Resumption of specie payments. 1880—Tenth Census: population, 50,155,783. 1880—Treaty with China.	The Democrats denounced the seating of Hayes and advocated tariff for revenue. The Greenback-Labor Party favored government control of money issues and opposed railroad land grants.	1777-78—Russo-Turkish War. 1778—Treaty of Berlin.
James A. Garfield—1881-1885 Chester A. Arthur, vice-president. Senate—76 members; House—332 members. 1881—Garfield assassinated; **Arthur, president.** 1883—Pendleton Civil Service Law.	The Democrats advocated a reduction of duties. The People's and the Prohibition were minor parties.	1885—Congo Free State founded.
DEMOCRATS IN CONTROL		
Grover Cleveland—1885-1889 Thomas A. Hendricks, vice-president. Senate—76 members; House—332 members. 1885—Death of Grant. 1886—Presidential Succession Law. 1887—Interstate Commerce Act; Dawes Bill.	The Republicans upheld the protective tariff and charged the Democrats with pursuing an injurious tariff policy.	
REPUBLICANS IN CONTROL		
Benjamin Harrison—1889-1893 Levi P. Morton, vice-president. Senate—88 members; House—357 members. 1889—North and South Dakota, Montana and Washington admitted. 1889-90—Pan-American Congress. 1890—Eleventh Census: population, 62,622,250. 1890—Dependent Pension, McKinley Tariff, Sherman Silver and Sherman Anti-Trust acts; Idaho and Wyoming admitted.	The Democrats denounced the McKinley Bill. In 1891 the Populist Party held its first national convention. The Populists advocated free coinage of silver and many socialistic measures.	1891—Trans-Siberian Railway begun.
DEMOCRATS IN CONTROL		
Grover Cleveland—1893-1897 Adlai Stevenson, vice-president. Senate—88 members; House—357 members. 1893—Hawaiian Annexation Treaty withdrawn; World's Fair in Chicago; financial panic; purchase clause of the Sherman Silver Act repealed. 1894—Wilson-Gorman Tariff Act; railroad strike. 1895—Venezuelan message. 1896—Utah admitted.	The money question was the leading issue in 1896. The Republicans adopted a gold standard. The Socialist Labor and Prohibition parties had nominees.	1894—Chino-Japanese War.

ADMINISTRATIONS

REPUBLICANS IN CONTROL	OPPOSING PARTIES	FOREIGN EVENTS
William McKinley—1897-1905 Garrett A. Hobart, vice-president. Senate—90 members; House—386 members. 1897—Dingley Tariff Bill. 1898—Hawaii annexed; battleship *Maine* destroyed; war declared against Spain. 1898—Battle of Manila Bay; Cervera's fleet destroyed; Santiago surrendered; peace protocol signed; fall of Manila. 1898—Treaty of Paris signed Dec. 10. 1899—Filipino insurrection; Hay's open-door note. 1900—McKinley reelected; Theodore Roosevelt, vice-president. 1900—Twelfth Census; population, 75,568,686. 1901—McKinley assassinated; **Roosevelt, president.** 1901—Hay-Pauncefote Treaty. 1902—Civil government in the Philippines; the President intervenes in the anthracite coal strike; Reclamation Service created. 1903—Northern Securities Case; Alaska boundary settled; department of commerce and labor established; Elkin's Law. 1904—Treaty with Panama; Panama Canal begun.	The Democrats in 1900 advocated free silver and made imperialism their chief issue. The Populists again supported Bryan. The Social Democratic Party was organized in 1897. In 1904 the Democrats condemned Roosevelt's supposed tendency to act beyond his constitutional powers. Both parties favored tariff revision.	1896-7—Gold discovered in Klondike. 1897—Turkey and Greece at war. 1899—First Hague Conference. 1899-1902—Boer War. 1900—Boxer uprising in China. 1901—Death of Victoria and accession of Edward VII.
Theodore Roosevelt—1905-1909 Charles W. Fairbanks, vice-president. Senate—90 members; House—386 members. 1905—Russo-Japanese War ended through the President's influence. 1906—Intervention in Cuba; Railroad Rate Bill; Pure Food Act; consular service reorganized; bureau of immigration and naturalization established. 1907—Oklahoma admitted; financial panic; first Philippine Assembly convened. 1907-8—Cruise of the United States fleet. 1908—Conservation Conference at Washington; death of Cleveland; Emergency Currency Bill; arbitration treaty with China.	In 1908 the Democrats had a more radical platform than the Republicans, but both parties favored downward revision of the tariff.	1902—Cuban Government organized. 1904-5—Russo-Japanese War. 1905—Union of Norway and Sweden dissolved.
William H. Taft—1909-1913 James S. Sherman, vice-president. Senate—92 members; House—391 members. 1909—Payne Tariff and Corporation Tax bill; the North Pole discovered by Peary. 1910—Thirteenth Census; population, 92,972,266. 1910—Interstate commerce laws amended and Court of Commerce created; bureau of mines established; lighthouse service reorganized; postal savings banks established; Federal Bankruptcy Law amended. 1911—White Mountain Appalachian Forest Reserve created; Glacier National Park made a national reservation; New Mexico and Arizona admitted. 1912—Parcel-post service provided for; children's bureau established; Panama Toll Act; amendment for the direct election of senators passed by Congress; Supreme Court rules revised; fisheries dispute settled by The Hague Court.	During this administration the Republican party split into radical and conservative wings. The nomination of Taft in 1912 by the conservatives was followed by the organization of a new Progressive Party, which held a national convention in Chicago, in August, 1912, and nominated Roosevelt for the presidency.	1910—Death of Edward VII and accession of George V; Portuguese Republic established; Union of South Africa formed. 1911—War between Italy and Turkey; Chinese Republic established. South Pole discovered. 1912—*Titanic* disaster in the North Atlantic; war in the Balkan States.
DEMOCRATS IN CONTROL		
Woodrow Wilson—1913- Thomas R. Marshall, vice-president. Senate—96 members; House—435 members.		

BENJAMIN HARRISON (1277)

Political Outlook.—It is an evidence of political freedom that the two major parties in the United States are so evenly divided that in the absence of any strong clearly defined issue success at the polls seems to pass very capriciously from one party to the other. A chance, alliterative phrase had much to do in defeating Blaine in 1884; a forged letter nearly defeated Garfield in 1880. Mr. Cleveland had been a strong advocate of tariff reform and that was made to serve as an issue in 1888 and the Democratic Party was defeated in the ensuing election.

The Convention.—Mr. Blaine was the preference of the republican leaders, but he absolutely refused to be considered a candidate. In the absence of a strong leader, Banjamin Harrison was selected as a compromise candidate,—that is one on whom the various factions could best unite if they could not secure the nominee of their choice. We have noticed other like instances in previous administrations (compare Polk, Pierce, Hayes and Garfield.) Such a candidate, even if successful in the election, has a difficult role to fill, since he is exposed to criticism from dissatisfied elements in his own party.

Admission of States.—Notice the number of states admitted. This is the largest number of states admitted into the Union in any one administration. We shall have to go back to an early period in the history of our country to find an administration of nearly equal activity.

The World's Fair of 1893.—The 400th anniversary of the discovery of America is indicated on the graphic. This was celebrated by an international exposition held in Chicago (3166). This exposition should be compared with others noticed in previous administrations.

Pan-American Congress (2154).—No event of any administration is of greater significance than the Pan-American Congress convened at the invitation of the United States, followed by the formation of the Pan-American Union.

The McKinley Tariff.—The Tariff bill enacted in Harrison's administration is of interest to us since William McKinley, of Ohio, had so much to do with it that it is known by his name and brought him into such prominence that he became a candidate for President a few years later.

Questions

There were five states admitted in an earlier administration, which one was it? (Study the graphics.)

Which of the states admitted in 1889 and 1890 come from the Louisiana Purchase? (See map Territorial Growth.)

How did the territory of the others come to be a part of the U. S.?

Which one of the states admitted in 1889 is the largest? (See graphics of states.)

Why had not Oklahoma been open to settlement in earlier administrations? (2092).

Does the Pan-American Congress pass any laws?

What Pan-American nation is the largest?

What are the points of resemblance between the United States and other members of the Pan-American Union?

What language is spoken in most of the republics?

What is the language of Brazil?

What is the language of Haiti?

How many nations in all form the Pan-American Union?

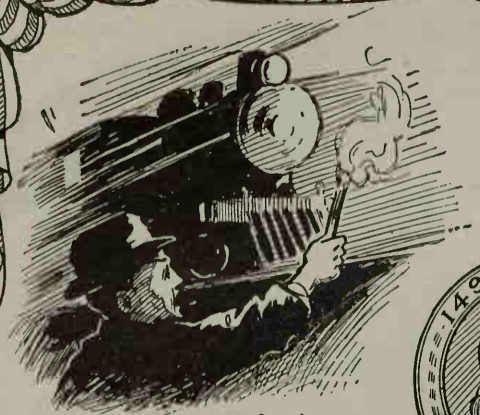
Was the McKinley Tariff of 1890 a Protective Tariff or a tariff for revenue only? (1735).

Which is the larger, United States or Brazil?

During the war of 1914 did any of the Pan-American nations take part? Mention them. (See European War.)

Are any of the Pan-American nations under the protection of the United States?

CLEVELAND
2ND TERM 1893-7



Railroad Strike

World's Columbian Exposition
Chicago, 1893

Financial Distress

Settlement Bering Sea Dispute

Venezuelan Message 1895

KETCHUM.

4082

GROVER CLEVELAND—Second Term (620)

Political Outline.—Mr. Cleveland enjoyed the unique experience of serving two terms, but with a one term administration intervening. The political instability of the times is apparent when we consider the period of shifting party control that followed the disputed election of Hayes. There was no great issue before the people. Politicians made much of the tariff, but that was a question that the great mass of the people considered solely from the standpoint of individual interest. After all, no great principle was involved. Another evidence of the lack of an issue was the number of minor conventions,—vain attempts to organize new parties. The result of political unrest showed in the election of 1892.

Railroad Strike.—The great railroad strike of 1894 is of interest because of the prompt use of United States troops to quell disorders in Chicago where the trouble originated. The President intervened because the transmission of mail was interfered with, the processes of the federal courts could not be executed, and because of interference with interstate commerce. This act established an important precedent. It shows a growing sense of the importance and scope of interstate commerce. (See graphic discussion of Cleveland's first term. Compare with Dorr Rebellion. With Civil War in Kansas.)

Financial Legislation.—The financial legislation of 1893 (not shown on the graphic) is of importance since it marks one of the final steps that placed the United States in line with the more advanced nations of the commercial world and established the gold standard. Incidentally it furnished an issue of great importance for the people to settle, which had been shaping itself ever since the close of the war. (See Grant's administration and Hayes' administration.) The legislation giving rise to the issue in question is known as the Repeal of the Sherman Silver Purchase Act.

The Venezuelan Message.—The Venezuelan message of President Cleveland is a state paper of the utmost importance in the diplomatic history of America, since it so vigorously upheld the Monroe Doctrine (1898), and eventuated in the first formal acknowledgment of the validity of that doctrine by a European power. (See Venezuela, 3007, and 621.)

Trouble with Spain.—During Mr. Cleveland's second term troubles between Spain and Cuba, involving the United States, were steadily becoming more serious and already the cloud of a foreign war began to loom upon the political horizon.

The Panic of 1893.—Cleveland's second administration drew to a close with foreign relations threatening; and great financial unrest at home due to uncertainty concerning the future of silver in our monetary scheme, and the passage of a new tariff law known as the Wilson Bill (3140, 2828).

Questions

What was the Bering Sea dispute? Is the seal a fish? (2594).

Who is supposed to be reading the Venezuelan Message?

What President first sent written messages to Congress? (Consult the graphics.)

Why did Cleveland send a message at that time to Congress? (3007).

Utah was not admitted until 1896, why was she so long delayed? (2992).

We have noticed a number of financial panics in the United States, the causes being nearly always, ascribed to legislation. Is there another reason? (2155).

Was President Wilson the author of the "Wilson Tariff Bill"? (3140).

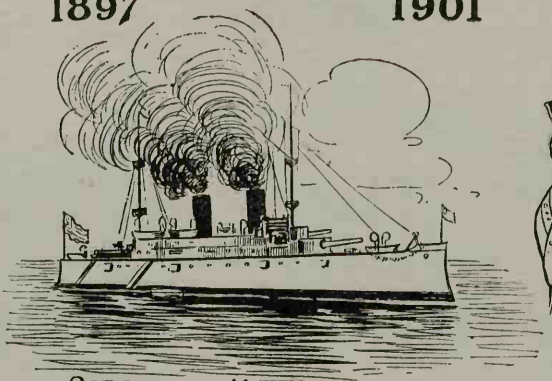
How did this tariff bill differ from the one shown on Harrison's graphic?

Compare World's Columbian Exposition (3166) with the Centennial Exposition (534).

McKINLEY

1897 1901

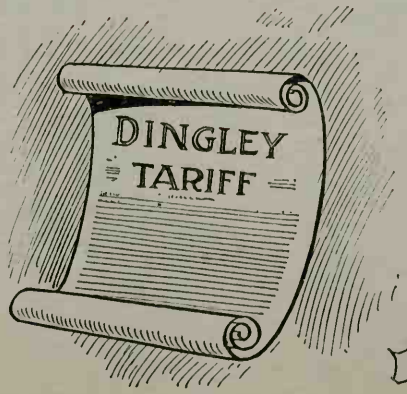
SPANISH-AMERICAN WAR
1898

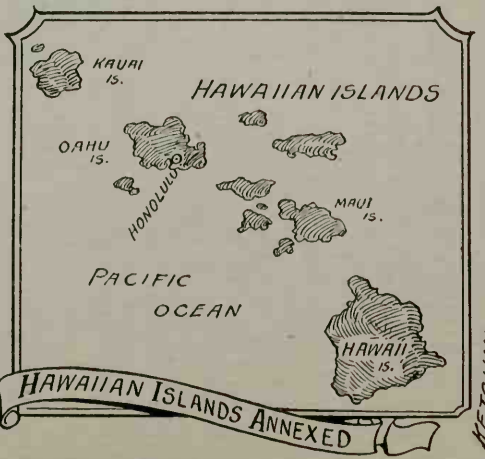


BATTLESHIP MAINE DESTROYED

UNCLE SAM'S OPEN DOOR POLICY
IN THE FAR EAST

PORTO RICO & PHILIPPINES ACQUIRED





HAWAIIAN ISLANDS ANNEXED

KETCHUM

4084

WILLIAM McKINLEY (1735)

Political Outline.—Influences beyond the control of party managers were so shaping events that an issue, which had been forming ever since the close of Gen. Grant's administration, suddenly presented itself with such force that it traversed party lines and focused the attention of the entire country. That issue was a financial one; and referred to the coinage of silver. Recall the various legislative acts referring to silver that we have discussed in preceding administrations. The question before the country was,—shall silver be restored to coinage on its old basis, or ratio? William McKinley was the candidate of the gold wing of the Republican Party, but he received the vote of many of the Gold Democrats.

William Jennings Bryan.—Mr. Bryan was the nominee of the Democratic Party, but as the platform demanded the unlimited coinage of silver, it did not receive the approval of a large element in that party. It is now generally admitted that the issue of free silver was a vastly important one.

Spanish-American War.—The great event of McKinley's administration was the Spanish-American War; and three of the incidents depicted on the graphic have reference to that war or its results. The war itself is described with sufficient fulness elsewhere (2711). We have referred in other administrations to incidents significant of the approaching struggle. (See Grant's administration, and Cleveland's second administration.) This war and its results should be compared with the Mexican War.

Hawaiian Islands (1284).—The annexation of Hawaii was finally consummated in McKinley's administration. This was an important step, since it places in our hand the eastern key to the Pacific ocean and its many islands. A glance at a large atlas will show at once the strategical importance of Hawaii to the United States, especially since the building of the Panama Canal (study this question). It should be noted that this was the annexation of a sovereign, independent state,—the second instance of its kind in our national history.

Questions

Make a study of the history of the silver questions. (See "Money," 1891; Bimetalism," 301.) Mention the steps which resulted in leaving the United States on the gold standard.

Give an outline of the causes of the Spanish-American War.

One event in Johnson's administration should be considered in connection with this war. What was it?

One event in Grant's administration?

What is the area of the Philippine Islands? (2238).

Do they stand to the United States in the same relation as Hawaii?

What other independent nation aside from Hawaii joined the United States? (See Harrison's and Tyler's administration.)

What is meant by the "Open Door Policy"? (2103).

Give an outline of Tariff legislation in the United States. (2826).

Under what tariff bill are duties collected in the United States when you read this?

On the island of Hawaii is a great natural curiosity. What is it? (1284).

Have you any evidence of comparatively recent volcanic activity elsewhere in the United States. (See "Yellowstone Park" in Geographical excursion.)

Men are represented as much interested in a newspaper. What is it they are reading about?

In a panel are represented the Philippines and Porto Rico. Are these islands near each other?

Did we pay Spain any money for them?

Also the Hawaiian Islands are represented. Are they a part of the United States in the same sense that the Philippines are?

THEODORE ROOSEVELT (2476)

Political Outline.—In the election of 1900, the Republican ticket headed by William McKinley was successful over the Democratic ticket with W. J. Bryan as leader. In all essential respects that election was a repetition of 1896, since the leaders were the same and the question of free silver was again one of the main issues, though legislation in 1900 had definitely made gold the standard in the United States (1892). At this point it is well to read the article "Money" (1891) and the graphic discussion of Grant's administration, also that of Cleveland's first administration, also consult the article Gold (1190).

Death of McKinley.—McKinley was the third President to be assassinated while in office. Theodore Roosevelt, Vice President, became President, September 14, 1901. He was the fifth Vice President to become President during the term for which he was originally elected. He was, however, the only Vice President so elevated to succeed himself as the result of an independent election.

General Issue.—Two successive presidential elections effectually disposed of the issue of free silver. There was apparently no great issue before the country; but Mr. Roosevelt, like Andrew Jackson of our earlier history, was not a passive executive or a figure head in party leadership. He was one of those dynamic characters with a strong personality and possessed a policy of his own. No administration—in times of peace—has been more fruitful in measures of quiet, yet far-reaching consequence, not only to our own country, but to the world at large. Some of the more important events are represented on the graphic. (See colored section.)

The Cruise of Our Fleet.—This cruise was intended as an object lesson to the nations of the world, and to show them that the United States was ready to defend its recently taken stand as a world power. It was not undertaken with any desire to interfere in the policies of foreign governments, but as proof of our ability to uphold our possession of the Philippine Islands; to manifest our power to decide what immigrants should be admitted to our shores; and to impress on foreign powers the necessity of respecting the Monroe Doctrine in its bearing on the republics of Central and South America (1898).

The Treaty of Portsmouth.—This is the treaty that put an end to the Russo-Japanese War (2501). It was at the suggestion of Pres. Roosevelt that commissioners of the two powers interested met at Portsmouth, New Hampshire, and concluded the treaty. In recognition of his efforts to promote international peace, Pres. Roosevelt received the Nobel Prize in 1906. Consult the article "Nobel Prize" (2043). It is interesting to remark that this prize money was finally turned over to the Red Cross organization in the war of 1914.

The Open Door.—Pres. Roosevelt did not initiate the open-door policy (2103), but as the successor of William McKinley he ardently supported it. Nominally, this policy is still in force, but it remains to be seen how it will be affected by the new relation established between China and Japan. This is important, since we are at the beginning of a new age,—a new grouping of political power in the world.

Panama Canal.—Probably the Panama Canal will rank in the future as the most noteworthy achievement of the Roosevelt administration (2150). The canal should be most carefully studied. Why is it of such great importance to the United States? Why is it of more importance since the conclusion of the Spanish-American War? Why will its importance continue to increase in the age of commercial expansion now at hand? The fact must be noted that the Canal Zone constitutes an addition to the territory of the United States. Note the

price paid for it and note especially the annual payment. How does that compare with the payment made for other territory?

Roosevelt Dam (See "Irrigation," 1480).—The Roosevelt Dam is of interest as showing the active interest the administration took in furthering reclamation projects. No department of government activity surpasses in importance these government projects. Their effect is to add millions of acres of fertile land to the public domain. (See graphic discussion of Arizona.)

Conservation of Forests.—The conservation of forests was but a part of the far wider program of conservation of our national resources (686). This is one of the most important measures ever initiated by any administration. No subject is of greater importance to the people of this country today. (Make a study of Forestry, 1062.) Notice the national forests in the United States and the duties of the Chief Forester. The several states have followed the initiative of the general government, and a systematic effort is making to conserve, or save, the natural resources of the individual states.

Pure Food Law (See "Adulteration," 23).—This is a measure that did not attract any great degree of attention at the start, but every year shows an increasing sense of its importance. (See Dr. Harvey Wiley, 3130.) It is this law that has led to the stringent inspection of packing house products. Under similar laws, public officials frequently condemn large supplies of food that have become unsuitable.

The Department of Commerce (666). This new department of government was instituted in Roosevelt's administration. It has proved very useful. The Bureau of Corporations was also organized in this administration (716). Increased power was given to the Interstate Commerce Commission (1456). These bureaus and commissions show the increasing control exercised by the general government over corporations. They were significant of the trend of the times. They were prophetic of recent actions,—such as virtual control of express companies, by means of the parcel post; and government control of railroads. Would these measures be considered as a triumph of federal or anti-federal principles? Which, then, has finally prevailed, the views of Hamilton or those of Jefferson?

Questions

Is the ship represented in the graphic a dreadnaught? (3060).

Which shield of the three shown on the graphic represents Russia? Is the government in Russia the same form now as when Portsmouth Treaty was signed?

Where is the Roosevelt Dam situated? (1472).

There are two dams shown on the graphic, compare them.

Mention other important canals (2782, 2560, 1758, 1531).

In what direction does the Isthmus of Panama extend where the canal cuts across it?

Taking the number of acres said to be irrigated (1472), how large a state would they make?

In area, between what two states of the United States would that state be?

What kind of a tree is that represented on the graphic?

In what states do we find large forests of these trees?

In Southern forests, what do they procure of value from such trees besides the lumber? (2945).

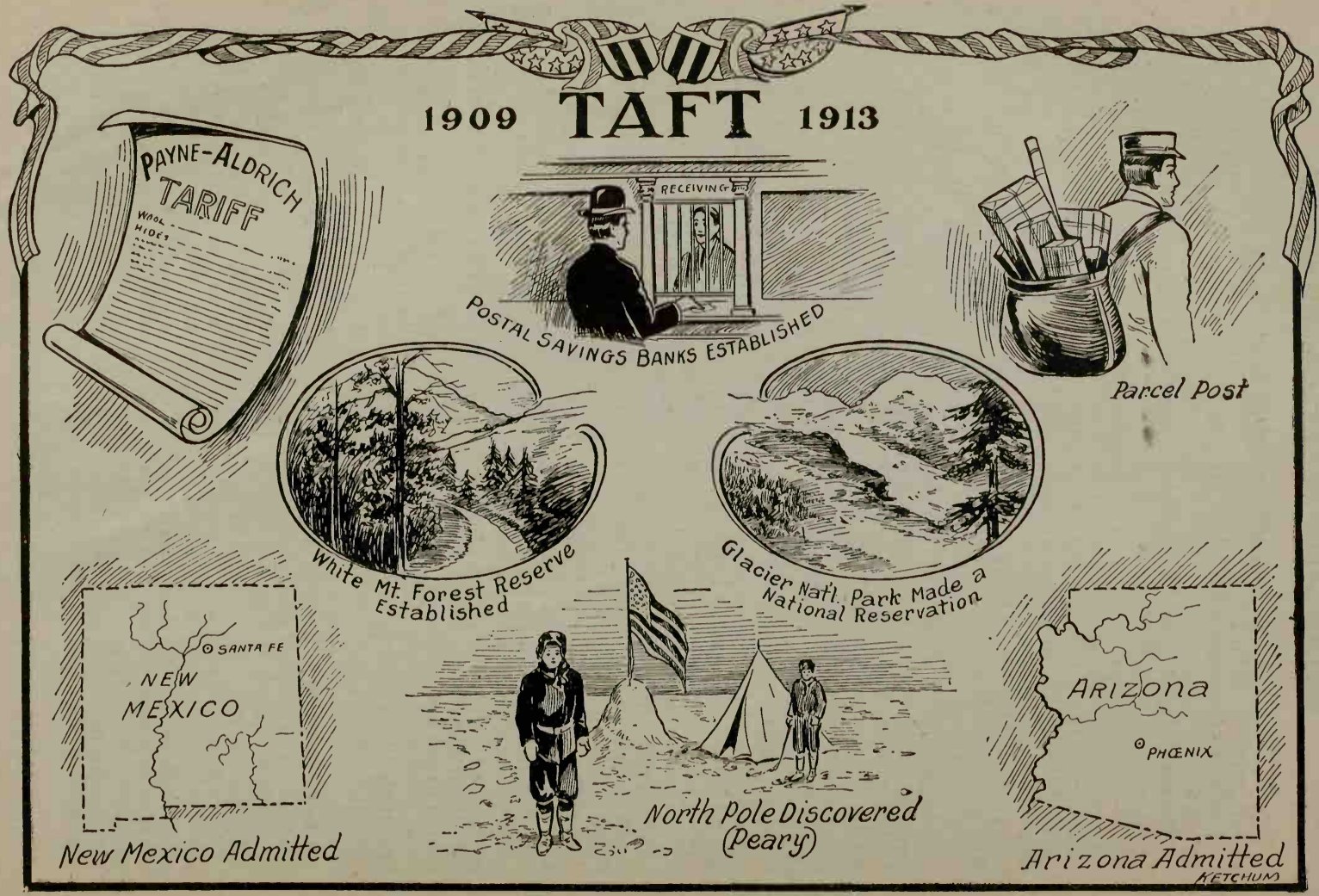
Where do you find the largest representations of trees of that order? (452).

All the states bordering Oklahoma were admitted at a much earlier period; what delayed Oklahoma? (2092).

In your home, you are sure to have something with something printed on it in accordance with the Pure Food Law. What is it? (23).

Who are the men represented as shaking hands?

Do you see an English city represented on the graphic?


1909 TAFT 1913
PAYNE-ALDRICH TARIFF
WOOL
HIDES
RECEIVING
POSTAL SAVINGS BANKS ESTABLISHED
Parcel Post
White Mt. Forest Reserve Established
Glacier Nat'l. Park Made a National Reservation
SANTA FE
NEW MEXICO
New Mexico Admitted
North Pole Discovered (Peary)
ARIZONA
PHŒNIX
Arizona Admitted
KETCHUM

W. H. TAFT (2816)

In the election of 1908 W. H. Taft, the Republican nominee, was elected president. He served one term. A glance at the graphic shows us that this was a period of quiet development for the United States. The questions raised by the Spanish War were in the main solved; the Panama Canal was in process of construction with its problems of sanitation and labor settled; national finances had been placed on a sound basis. No one then dreamed of the tremendous storm of war less than a decade distant.

Postal Development.—Two important measures of this administration concerned the postoffice department. The first in point of time was the Postal Savings Banks (see 2331), established in 1911. This has been a very popular innovation; at the close of the fiscal year 1917, nearly 700,000 depositors were on the books, and the balance to their credit was nearly one hundred and fifty million dollars.

The Parcel Post.—The Parcel Post (2164) was in effect the institution of an express business on the part of the government. This resulted in 1918 in the consolidation of all the express companies under one head.

Glacier National Park.—The government has from time to time set aside as National Parks for the enjoyment of the people of the United States, for all the world who care to come, extensive areas of land of scenic interest or areas containing objects of great natural interest. Glacier National Park (1175) contains many living glaciers, not to be compared, of course, with the great glaciers of Alaska, but from them we can form a faint mental picture of the conditions once existing over all of Northeastern United States.

The North Pole.—This is an exceedingly interesting event. No practical results have yet followed, but the discovery marks the successful conclusion of many years of earnest effort (2291). Two years after the discovery of the North Pole, the South Pole was discovered, but not by an American explorer.

Admission of New States.—The admission of New Mexico and Arizona in Taft's administration marks the completion of the process of state building in the compact area of the United States. Future states, if any, must come from Alaska or our island possessions.

Payne-Aldrich Tariff. (2838).—This is one of the later steps in tariff revisions. The important point in connection with it was the provision for a Tariff Commission to study the question of Tariff legislation.

Questions

What is the difference, if any, between a parcel post business and an express business?

Mention some other glaciated sections in the United States.

Were there any glaciers in your state?

What is the difference in the surface features surrounding the two poles? If at the North Pole, in how many directions could you look?

How did the United States gain possession of the territory now divided into New Mexico and Arazona?

The second oldest town in the United States is indicated on the graphic. Where is it?

There are very interesting ruins in Arizona, describe them (621).

Was the Payne-Aldrich Tariff a high or low tariff bill? Protective or for revenue only bill? Are goods imported under that bill now?

What is the difference between a forest reserve and a National Park?

When you read this, is it day or night at the North Pole?

How many ex-Presidents, if any, are living when you read this?

It has been suggested that ex-presidents should ex-officio become senators at large. What do you think of that suggestion?

1913
WILSON
PANAMA-PACIFIC EXPOSITION
Address to the War Congress
SUBMARINE WARFARE
DOMESTIC POLICIES
FEDERAL RESERVE BOARD
CURRENCY LEGISLATION
RURAL CREDIT LAW
THE ADAMSON BILL
FEDERAL SHIPPING BOARD
NATIONAL PREPAREDNESS LEGISLATION
FEDERAL TARIFF COMMISSION
CABINET OFFICERS
Sec. of State-Robt. Lansing — Postmaster-General-A.S. Burleson
" " Treasury-W.G. McAdoo — Att. General — Thos. W. Gregory
" " War — N.D. Baker — Sec. of Agriculture-D.F. Houston
" " Navy-Josephus Daniels — " " Commerce-Wm. C. Redfield
" " Interior-F.K. Lane — " " Labor — Wm. B. Wilson
FOREIGN POLICIES
THE LUSITANIA SINKING
OPPOSITION TO GERMANY'S SUBMARINE POLICY
PURCHASE OF THE DANISH WEST INDIES
PROTECTORATE OVER HAITI AND SAN DOMINGO
CANAL TREATY WITH NICARAGUA
PEACE NOTE TO THE BELLIGERENTS
WAR WITH GERMANY
COLON
GATUN LOCKS
MIRAFLORES LOCKS
PANAMA CANAL
U.S.
PUNITIVE EXPEDITION INTO MEXICO
MEXICO
VERA CRUZ
MEXICAN AFFAIRS
EUROPEAN WAR
C.H. KETCHUM

4090.

WOODROW WILSON (3140)

The Democratic Party was victorious at the polls in 1912 and its candidate, Woodrow Wilson, was elected President. He was re-elected in 1916. The great event of his administration was, of course, our entry into the European War of 1914. (See European War.) This graphic is concerned with events leading up to that occurrence. The cabinet given is the war cabinet.

Domestic Policies.—On the left, notice important events connected with the internal affairs of our country, occurring before the storm of war broke. In the lower corner, note the completion of the Panama Canal. This marks the beginning of a new era in ocean transportation (2151). In the upper corner, note the Panama-Pacific Exposition to celebrate the completion of the canal and to commemorate the 400th anniversary of the crossing of the Isthmus of Darien by Balboa (see 224). In the panel between, note some of the administration policies written into laws. Notice the subject of national preparedness. That marks the waking up of the people of the United States to the necessity of preparing for possible eventualities in the great conflict that was then raging in Europe.

Mexican Affairs.—Compared with later occurrence, the Mexican Expedition seems a trivial matter. But at the same time it was a momentous affair. It is interesting to recall that the general in command of that expedition afterwards commanded the American forces in Europe.

European Affairs.—On the right hand side of the graphic is represented some of the foreign events that preceded, and plainly indicated, the coming break with Germany, also notable events in connection with other nations indicative of the increasing influence of the United States.

The Danish West Indies.—The purchase of the Danish West Indies is of importance because these islands, though small, are advantageously located for defense of the Panama Canal. At present, they constitute the latest acquisition to the territory of the United States. The canal treaty with Nicaragua virtually makes that nation a protectorate of the United States and notice is made of the assumption of such a relation with the island republics of Haiti and San Domingo.

The Lusitania.—The sinking of the Lusitania represented in the upper right corner was one of the most dastardly deeds of the German submarine warfare. Men, women, and children, more than 1100 in all, were drowned as a result of that outrage, and it was one of the principal causes leading to our war with Germany.

War Message.—President Wilson is represented as reading his message to Congress. It will be interesting to turn back and read the graphic discussion of Jefferson's administration.

Conclusion

We have now concluded the graphic discussion of the presidential administrations from 1789 to 1920. It is well to review that period. Notice the vast increase in all the elements of national well being. It is important at this point to observe that the first great period in our country's history now closes. Owing to forces that sway the development of government in the world, we were compelled to take an active part in the World War of 1914. We are dimly conscious that startling developments in every department of public life not only in our own country but throughout the world are at hand. One of the most eventful epochs in history now opens. We are entering on a period of world development.

All this is intimately connected with the administration of Woodrow Wilson, that is to say, with the period of time during which he was president. We accordingly invite your attention to the chronology and detailed account of the great war that now follows (P. 4092).

THE EUROPEAN WAR

The European War began July 28, 1914, when Austria-Hungary declared war on Serbia; hostilities ceased when Germany signed the armistice terms of the Allies Nov. 11, 1918. The period of time between these two dates is probably the most momentous in history; but the present generation is too intimately connected with the tragic incidents of the war to realize clearly the issues involved. When we have gained the proper perspective of years from which to view it we shall see that civilization itself was at stake.

Being one of the most momentous wars in history, one from which a new age is to date, volumes would not suffice fully to set forth the details. We shall not make the attempt in the limited space at our command, though we have already arranged a very complete chronological index. (See pages 4092-5.) Our present purpose is to speak of the causes of the war and to prepare an outline history of the same, presenting with fullness only those incidents that in years to come will be landmarks in history.

We shall call attention to the significant changes in the governments of various European nations, and the geographical changes that have ensued; speak of the rise of new nations; consider the revolutionary changes certain to follow the overthrow of autocratic government and note the great readjustments of political, social and economic ideals now necessary. Our illustrations are intended to acquaint the reader with the leaders of the forces of democracy and the statesmen that directed the energies of the nations concerned. Finally we wish to impress on all the wonderful work of our own country in this war for liberty. For the first time in history, American soldiers fought on European soil. Let us follow them in their campaign, become familiar with the great work they accomplished, rejoice in their victory and let the memory of those who have fallen incite us to uphold the principles of liberty they died to sustain.

The Ostensible Cause

The ostensible cause of the war was the murder of the heir of the Austrian throne, the Archduke Francis Ferdinand,

and his wife, the Duchess of Hohenden, at Serajevo, the old capital of Bosnia. This deed was the act of a fanatic, but Austria professed to see in it the work of a revolutionary society whose activities were said to be encouraged by the government of Serbia itself. Accordingly, July 23, Austria sent an ultimatum to Serbia, very drastic in nature, since compliance with its terms meant that Serbia placed herself under the control of Austria. The reply of Serbia, though yielding on most points, was not fully satisfactory to Austria, and hence the latter country declared war as stated.

The Hidden Causes

The real causes of the war belong to the hidden currents of European diplomacy, that like ocean currents sweep on, paying no attention to surface winds and storm. The pistol shot at Serajevo was the occasion, not the cause, of the outbreak; it was the surface disturbance, and was itself due to forces shaping the historical evolution of a people. It was the final conflict between two rival theories of government that have for centuries swayed the actions of men,—Autocracy and Democracy. That this was the issue at stake was openly admitted by ex-Kaiser Wilhelm II in his address to the army in April, 1918. When we clearly grasp this point of view, we see that mighty movements in history do not depend on chance occurrences.

The Military History of Germany

Let us glance at the military history of Germany and note the influence it exerted on national thought, which in turn shaped the policy of the German government. The foundation of Prussia's greatness as a state was laid by Frederick the Great in a war that he forced on Maria Theresa of Austria by which he gained possession of Silesia. One hundred years later, Bismarck, the man of blood and iron, as the result of three victorious wars founded the German Empire. Not one of these wars was justifiable; the ulterior purposes of Germany in every case being to gain territory, wealth, and power at the expense of other nations. She succeeded, but in that success we find hidden the cause of the World War of 1914 and the resulting downfall of Germany.

Development of the Empire

The empire founded by Bismarck enjoyed nearly fifty years of peace, during which time the population doubled and Germany's colonial possessions, won in Africa and Polynesia, amounted in area to nearly five times the original area of the empire in Europe. During that time the empire's foreign trade increased fourfold and she enjoyed great industrial prosperity, becoming a great manufacturing nation. Her merchant marine ranked second to that of England; in the year 1913 nearly 1,000 vessels were built in German shipyards. But along with this growth in national well-being, a military ideal was forming that enlisted the coöperation of military and intellectual Germany—of the entire nation, in fact—that could only end in one of two ways:—world conquest or downfall. This was admitted by the German military writer, Gen. Bernhardi, a few months before the opening of the great war.

The Great Conspiracy

It is permissible to suppose the ideal in mind in its first stages was simply a determination on the part of Germany to organize an army superior to any European army so as to hold the gains she had made; this was probably true of the days of the first rulers of the new empire. But when Wilhelm II became kaiser the nation's destiny was confided to the keeping of a ruler who firmly believed that he was commissioned to lead his people, as he himself said, "to splendid days." Judging from his own statements, comparing them with his actions, he planned for an enormous increase in territory and power. In imagination, he saw rising a vast "Mittel-European Empire," stretch-

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ALBERT I. KING OF BELGIUM.

Albert will live in history as the great leader of the forces of Belgium in their heroic resistance to the armies of Germany, crossing Belgium territory, on their way to France. At a terrible sacrifice this advance was delayed, which probably saved Paris and France, and possibly the cause of Democracy itself.

ing from Hamburg to Bagdad, over which the house of Hohenzollern should hold autocratic sway, and bend to its rule all other nations, taking from them whatever portions of their territory it coveted.

The New Ideal

And this ideal speedily became that of military and intellectual Germany. In this matter we can speak with assurance, since it was boldly put forth by the leaders of thought in Germany—in books and pamphlets and speeches—with such frankness and fullness of detail that the world at large refused to accept it seriously, regarding it as the over-zealous statements of enthusiasts. It is not necessary to enlarge on this point. The evidence is in existence, it can be read by all. France, only, sensed the coming storm. The nations that in the war became the entente nations rested in fancied security until the armies of autocratic Europe were actually on the march.

Secret Preparation

But what the world did not know was the wonderful preparations for a war to make real this scheme of conquest which engaged the activities of Germany, almost from the beginning of the reign of William II. With characteristic German thoroughness and patience the plans were laid. Thoroughness, since they embraced every conceivable means that would enhance their prospect of victory, her military leaders, scientists and statesmen were all busy. Patience, since they realized there was much to do. Many years were needed and Germany refused to be hurried. She carefully attended to every means calculated to increase the

GEN. JOSEPH J. C. JOFFRE.

Commander-in-Chief of the French Armies at the opening of the war. He conducted the retreat of the Allied forces from Charleroi to their positions along the Marne River from near Paris to Verdun. Then was fought the first battle of the Marne. He visited the United States in 1917, as head of the French Commission.

GEN. H. H. KITCHENER.

Earl of Khartoum, appointed English Secretary of State for the War in 1914. He recognized the gravity of the crisis and planned for a long war and vast supplies. His genius changed what Germany called "the contemptible" little army into a most formidable military machine. He was drowned at sea, June 5, 1916.

commerce and industry of the empire, but with it all—underlying it all—were activities devoted to preparations for world conquest. Building for world empire, Germany could afford to take time.

Problems to Be Solved

It needed time to solve the military problems involved. A nation aspiring to territory extending from Hamburg to Bagdad must firmly control the Balkan states. That meant that Austria must become, in effect, a German province; Serbia must be crushed; Bulgaria must become an ally; and Turkey must be brought under control. In 1913, two of these desired results were attained. Turkey was to a surprising degree under the military and economic control of Germany (see Bagdad Railway). Austria had become such a close ally that she might almost be styled a vassal state of Germany. She faithfully carried out the wishes of Germany in 1908 when she annexed the Serbian states of Bosnia and Herzegovina, a step she felt safe in taking since (the Kaiser's own words) behind her was the "shining sword of Germany."

It were tedious to enlarge on this point. Let it suffice to say that in 1914 Germany felt herself ready for the conflict. Enormous supplies of guns, of a caliber before unthought of, and apparently inexhaustible supplies of ammunition had been prepared; strategic railroads had been built by which armies and supplies could be hurried to desired points; the Kiel Canal had been completed; her navy had assumed threatening proportions; her army, greatly enlarged, was in perfect readiness.

GRAND DUKE NICHOLAS NIKOLAIEVITCH.

The Commander of the Russian forces in the year 1914-15. He conducted the great retreat of the Russian Armies in 1915, one of the ablest on record. German propaganda work, even then active at the Russian Court, succeeded in banishing him to an insignificant military post in the Caucasus.

The Potsdam Conference

Bearing all this in mind, we can understand with what alacrity the Central Nations of Europe (Germany and Austria-Hungary) seized upon the assassination of the crown prince at Serajevo as a means to advance their scheme of conquest, — diplomatically if possible, otherwise by the sword. The prince was

SECTION OF A TRENCH IN FRANCE.

Trench warfare was originated by the German Army after its defeat in the first Battle of the Marne. Their use then became general on all fronts. Hundreds of miles of trenches were constructed in France. They were frequently constructed in parallel line, with intricate cross trenches. They were protected by a complicated system of barbed wire entanglements.

murdered June 28, 1914. One week later a secret council convened at Potsdam over which the emperor presided. It was attended by representatives from Vienna, the various Germanic states, army chiefs, and leading financiers of Germany. Among the conferees was the German ambassador at Constantinople, who obligingly gave the American ambassador at Constantinople full details of the conference supposed to be kept secret.

Decision for War

The matter of possible war was carefully considered. To the earnest question of the emperor, all present assured him that the interests they represented were ready, with the exception of the financiers who desired two weeks' time in which to make financial arrangements for the coming storm. This was given them, and the council adjourned. The emperor, to divert suspicion, hurried off on a yachting trip while the financiers immediately commenced disposing of their foreign securities. The stock markets of London, Paris, and New York during that interval of time bear eloquent testimony to the truth of these assertions. Two weeks and three days after the council adjourned Austria sent her ultimatum to Serbia. The truth of these statements is vouched for by Henry Morgenthau, American ambassador to Turkey.

EVENTS OF 1914

Nations Involved

Within one week from the declaration of war by Austria the armies of Russia, Germany, France, Belgium, and Great Britain were on the march; before two weeks had elapsed, Montenegro and Japan were involved; and before the close of 1914, Turkey entered the war. Considering the foreign possessions of these nations the larger part of Europe, Asia and Africa was officially at war; and since Canada is a part of Great Britain, nearly half of North America was also involved, as well as Australia and a large part of Polynesia. These nations divided as follows: Germany, Austria-Hungary, and Turkey were united as the Teutonic Allies; the other nations were known at first as Entente Powers but

in later stages of the war they were designated as the Allies. Ostensibly these nations were actuated by diverse motives, in reality there was but one cause,—a desire for world conquest on the part of Germany. As subsequently enlarged the armies of these various nations exceeded in number thirty-two million men. Never before in history had such stupendous forces arrayed themselves for war. Notice the vast area of territory, the enormous armies involved, and the explosive suddenness of the outbreak. Already, it was the world organized for self-protection against the designs of Germany, that would rear on the ruins of world-liberty a nation of magnitude and power never before approached in history.

German Plan of Campaign

Germany prided herself on being always ready for war. Her mobilization plans were so carefully arranged that the chief of the General Staff had only to issue a general order and almost automatically the armies, with full supplies, were on the move. During the first week of the war, Germany mobilized on the extended line from Metz (1828) to the eastern boundary of Belgium, five great armies with full supplies, and in addition two armies to guard Alsace and Lorraine (83). The distance along which these armies were grouped was about 125 miles. It will be noticed that Paris is approximately the same distance to the west of Metz. The German plan of campaign may be crudely stated as follows: Regard that extended line as a flail, hinged near Verdun, moved in a circle until the northern tip, under command of Von Kluck, should fall with all the energy Germany could put into the blow on Paris. In the meantime, the other armies would crush back, outflank, defeat, and capture the small British and hastily mobilized French armies that confronted them along the entire line. It was believed that a short campaign would crush France, over-awe Great Britain, and end the war in the west. It was thought that six weeks would be ample to accomplish this result.

Belgian Resistance

What Germany did not count on was the heroic resistance of Belgium and consequent delay. Belgium is an independent country and Germany was one of the nations that by treaty had guaranteed her independence. But the shortest road from Germany to Paris was through Belgium—further, France had not prepared for invasion by way of Belgium, and even partial success in that move

GRENADE THROWERS.

Hand grenades represent a revival of ancient means of warfare with modern appliances. The grenades are filled with high explosives and projectiles. Notice the throwers wear masks to protect themselves from gas attacks, their heads are guarded by helmets, and they wear chest protectors. Soldiers were trained to throw with accuracy and speed.

would place under German control the coal and iron mines of northeastern France. Accordingly, August 2, 1914, Germany demanded from Belgium a free passage for her troops on their way to Paris, threatening force in case of refusal. In response to the protest of Great Britain to this violation of neutrality, Von Bethmann-Hollweg used his famous expression that the treaty was "only a scrap of paper," thus dismissing any claim of moral responsibility. This fairly represents the official German point of view, manifest by her conduct throughout the war; all laws,—national or international, human or divine,—were "scraps of paper" to be broken at pleasure if they stood in the way of German success.

The Result of Belgian Resistance

Germany expected that at the most a day or so would see Belgian resistance broken and the dash on Paris begun. It was not safe to start such a forward rush with Belgium unconquered. This was the first of many, many mistakes made by Germany. It required two weeks to break down this resistance. Thus the northern end of the flail was held and movement along the entire line was slowed down or suspended. The unexpected delay saved France. Let us remember this when we read the story of Belgium's martyrdom. Four years of horror followed,—Belgian cities were pillaged; her citizens robbed, murdered and outraged; her cathedrals desecrated; her art treasures carried away or destroyed; her libraries burned. The fate of Belgium—written in blood—will forever tarnish the military record of Germany. At such a sacrifice as this, the war was saved in its first stages.

Retreat to the Marne

But the unexpected resistance of Belgium accomplished other results. Even when a bloody passage was forced across Belgium, continued resistance—known at the time to be futile—detained for service in Belgium at least two full army corps that would otherwise have been with Von Kluck in France and might have changed the result of the first Battle of the Marne. But the menacing rush of German invaders could not be wholly withstood. Brussels (401) was occupied by German forces August 20. Namur was taken four days later, and two days later still occurred the terrible scene at Louvain. The city was sacked and burned, hundreds were shot in cold blood. The first great dash for Paris began (Aug. 23) after the situation in Belgium had been given its bloody setting.

Retreats to the Marne

The Allied retreat directed by Gen. Joffre was a remarkably able one. His plan was to give ground before the advance without risking a decisive battle until he could rearrange his forces and gain a favorable position. Only with difficulty was the retreat saved from becoming a great disaster when the British army was defeated at Mons-Charleroi (Aug. 21-3). Apparently, the German forces were carrying everything before them as the retreat continued. The flail, swinging from Metz to Belgium, was falling with crushing effect along the entire front, the movement being very rapid at the western but slow at the eastern end. It was centered at Verdun because it was not safe to leave that fortress unconquered in the rear. During the entire retreat Gen. Joffre was rearranging his forces to give battle.

The First Battle of the Marne

The Marne is a small river in France which will hereafter be one of the storied rivers of history, the scene of mighty battles, where the red tide of German success ebbed in its flow. The night of September 4, the German armies were in position along this river in an irregularly curved line slightly convex to the south from a point only twenty-five miles east of Paris to Verdun, one-hundred-twenty-five miles, slightly to the northeast. The evening of that day, General

FIELD MARSHAL SIR DOUGLAS HAIG.

Commander-in-Chief of the British forces in France and Flanders after 1915.

GEN. SIR JULIAN BYNG.

Commander of the British Third Army in the Battle of Cambrai, the first in which tanks were employed.

GEN. HENRI PHILIPPE PETAIN.

Commander-in-Chief of the French Armies in 1917. One of the defenders of Verdun, made a marshal of France in Nov., 1918.

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GEN. ARMANDO DIAZ.

Commander-in-Chief of the Italian forces in 1918. Conducted the campaign that compelled the surrender of Austria.

Joffre issued orders for a general attack all along the line. His message to the French Senate was couched in words of deep meaning,—he had made, he said, the best dispositions possible. France could only await in hope the outcome. The battle that began the next day continued for one week and ended with a victory for the Allies as the German armies were forced back everywhere, a varying distance, to a line of defense prepared back of the Aisne River. The point of nearest aproach to Paris, on the new line, was about 70 miles distant. It is interesting to note that one of the generals under Joffre was the general who afterward became the generalissimo of the Allied forces.

The Magnitude of the Battle

The battle front covered a distance of about 125 miles. The forces engaged numbered about 1,500,000 men. Thus this battle far exceeds in magnitude the battle of Mukden, previously considered the greatest battle of modern times; (2502) while the great battle of Waterloo (3083) was an insignificant skirmish in comparison. It is of further interest to learn that Allied success was largely the result of the use of flying machines for scouting purposes, which enabled General Joffre to take instant advantage of tactical mistakes of General Von Kluck. And the results were commensurate with the immensity of the struggle. Paris was saved; the first period of the war in the West was ended; Germany was rudely awakened from her dream of easy conquest. One of the most important results was the realization that the German military machine was not invincible; other soldiers were just as brave, other generals just as able. It was the first blow struck at the fetish of German military supremacy. The ex-Crown Prince of Germany has declared, since his overthrow, that Germany lost the war in that battle and that he advised the making of immediate peace when German armies retreated to the Aisne. "Your majesty, the war is lost," was the way Von Moltke reported the result of this battle to the Kaiser.

Events Along the East Front

When the war opened, Russia confronted Germany and Austria along an irregularly curved line, convex to the west, bordering Galicia in Austria on the south, Prussian-Poland in the center, and East Prussia in the north, roughly a distance of 800 miles. The border provinces were the scenes of invasion and counter-invasion from the opening of the war to the collapse of Russia in the spring of 1917. The first Russian dash was in East Prussia. This dash was undertaken the first week of the war before Russia was fully prepared. It was a move on the international chess board to influence operations in France by making it necessary to send troops from the west to defend East Prussia. It drew off a number of army corps that otherwise would have taken part in the battle of the Marne. The world must not forget the self-sacrificing actions of Russia in this respect.

Battle of Tannenberg

These movements culminated in the battle of Tannenberg, nearly one hundred miles southeast from Konigsberg, in the Mazurian Lake region. General Von Hindenberg was the German commander. He was a native of East Prussia, and acquainted with the country, but had lived in retirement for some years. Appointed to command, he made such a skillful disposition of his troops that the Russian army under General Samsonov —consisting of five corps—was virtually annihilated, less than one corps escaped by headlong flight. According to German authority, 70,000 Russians were captured. General Von Hindenberg was acclaimed the greatest soldier of the day and was immediately appointed field marshal in command of all the German forces in the East. This battle began August 26, 1914.

THE WAR CABINET

Back row from left to right: President WOODROW WILSON; WILLIAM G. MCADOO, Secretary of the Treasury; THOMAS W. GREGORY, Attorney General; JOSEPHUS DANIELS, Secretary of the Navy; DAVID F. HOUSTON, Secretary of Agriculture, and WILLIAM B. WILSON, Secretary of Labor.

Front row from left to right: ROBERT LANSING, Secretary of State; NEWTON D. BAKER, Secretary of War; ALBERT S. BURLESON, Postmaster General; FRANKLIN K. LANE, Secretary of the Interior, and WILLIAM C. REDFIELD, Secretary of Commerce.

In Galicia

The disaster at Tannenberg was offset by great Russian victories in Galicia (1120). Southern Poland and Northern Galicia were the scenes of give and take actions, since the Austrians were on the whole successful in Poland, but just the reverse in Galicia. An important victory was won at Sokal, August 14, only two weeks after war was declared. Lemberg was taken by the Russians September 3. Following this, the Austrians were completely defeated in Galicia and Czernowitz was occupied the 10th of September. It will be seen that these victories coincided with the Allied victory on the Marne.

In Poland

The invasion of Poland from the north by German forces under Von Hindenberg may be dismissed in a few words. The Grand Duke Nicholas was in command of the Russian forces. The first German invasion was in October and met with success at first, in fact, they were in sight of Warsaw, but were forced back by Grand Duke Nicholas of Russia. Later in the year, the second German invasion occurred with great battles near Lodz. The forces then came to rest along an eastern front, extending in a curved line from Czernowitz on the south to Kovno on the north, curving to the west of Warsaw. The important city of Przemysl was besieged by the Russians.

EVENTS OF 1915

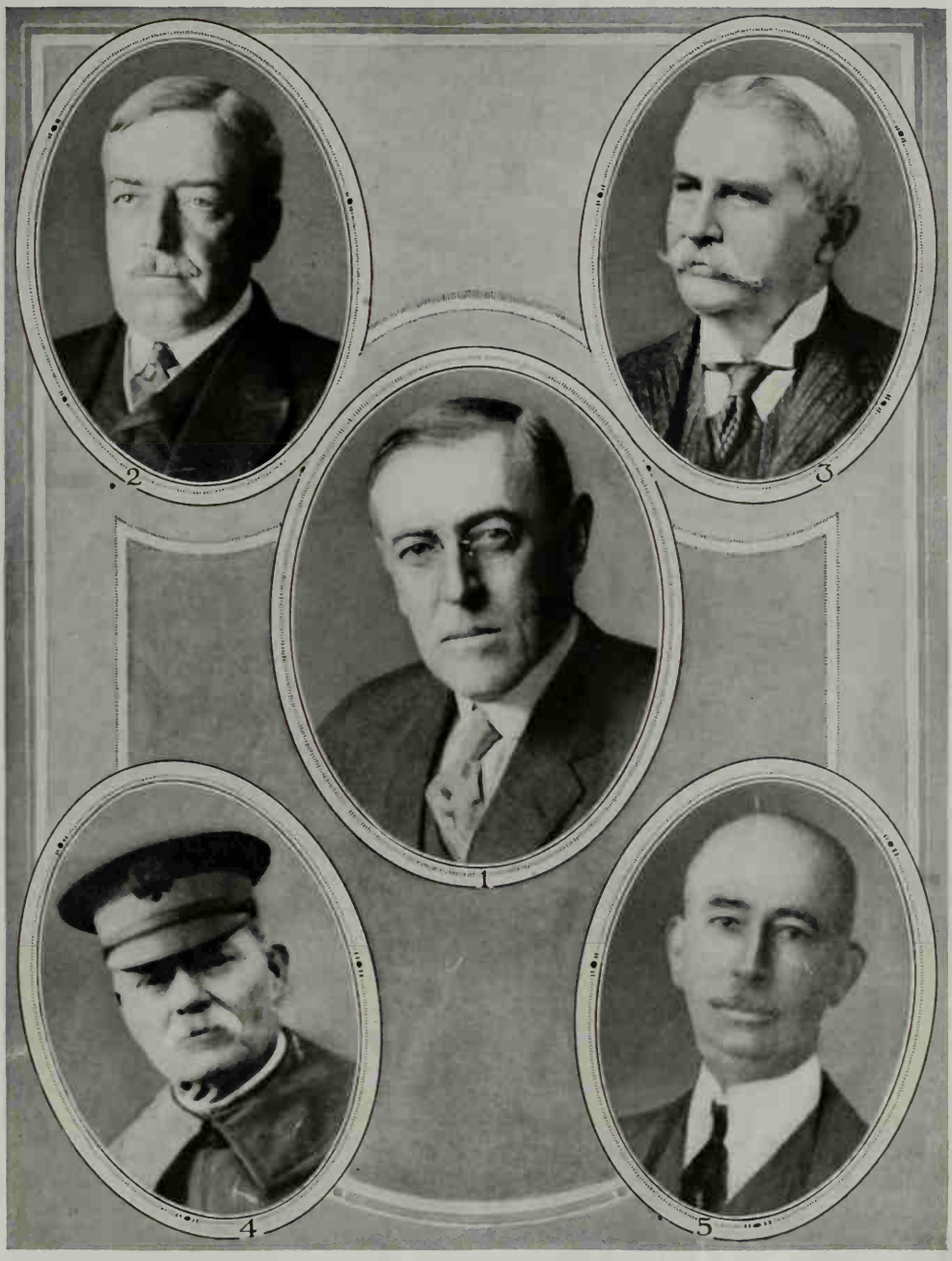
Let us notice first the widening area of the conflict. Three other nations were drawn into the war during the year,—Portugal, Italy, and Bulgaria. Portugal as an ally of Great Britain was early involved (May 10), though a formal declaration of war was not made until a year later; Italy entered the war on the side of the Entente Allies, May 23. Though Italy had been a member of the Triple Alliance (Teutonic League) she could neither forget nor forgive the actions of Austria in earlier years (1479), nor overlook the annexation of Bosnia and Herzegovina (350), nor withstand the rising tide of irredentism —a desire to win back unredeemed Italy. Bulgaria became one of the Teutonic Allies October 13. Frankly, Bulgaria was actuated only by a desire to extend her territory. The military ideals of Prussia appealed to her and she showed herself a congenial ally of the autocratic powers,—Germany, Austria, and Turkey, to the north and to the south,—vying with them in unspeakable methods of warfare.

On the West Front

Defeated in their attempts to win a crushing victory over France, the Germans turned their energies to winning the war in the East by a decisive victory over Russia. As a consequence of this change in plans, the long, irregular line of trenches, from Switzerland on the south to Ostend on the North Sea, marking the German retreat after the battle of the Marne, remained without substantial changes during 1915, while Great Britain was completing her preparations. Do not understand there were no battles along that extended line. Almost daily there were conflicts that in former wars would have been given a place among the world's great battles. They are scarcely worth mentioning in the annals of this war. Back and forth across that narrow line surged the red tide without decisive changes in position. There were attacks and counter attacks of the most sanguinary nature near Calais (446). The first instance of the use of gas in war occurred in these battles at the second battle of Ypres, April 23, 1915. No one dreamed of such a vast development of trench warfare as took place in Northern France; hundreds of miles were constructed, all defended by complicated lines of wire entanglements.

On the East Front

The siege of Przemsyl was ended by the capture of the city, March 22; but this victory marked the high tide of Rus-



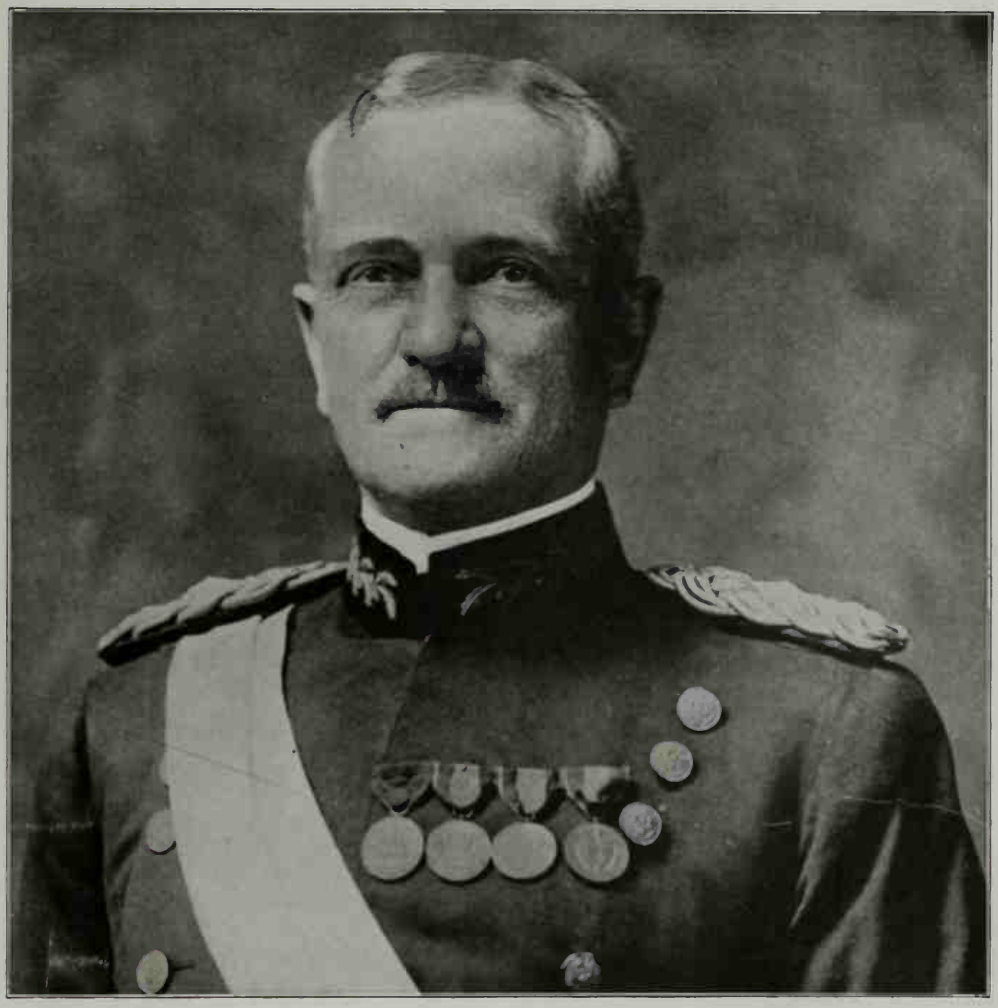
AMERICAN DELEGATES TO THE PEACE CONFERENCE AT VERSAILLES

1. Woodrow Wilson, President. 2. Robert Lansing. 3. Hon. Henry White. 4. Gen. Tasker H. Bliss. 5. Col. E. M. House.

MARSHAL FERDINAND FOCH,

Commander-in-Chief of the Allied Forces.

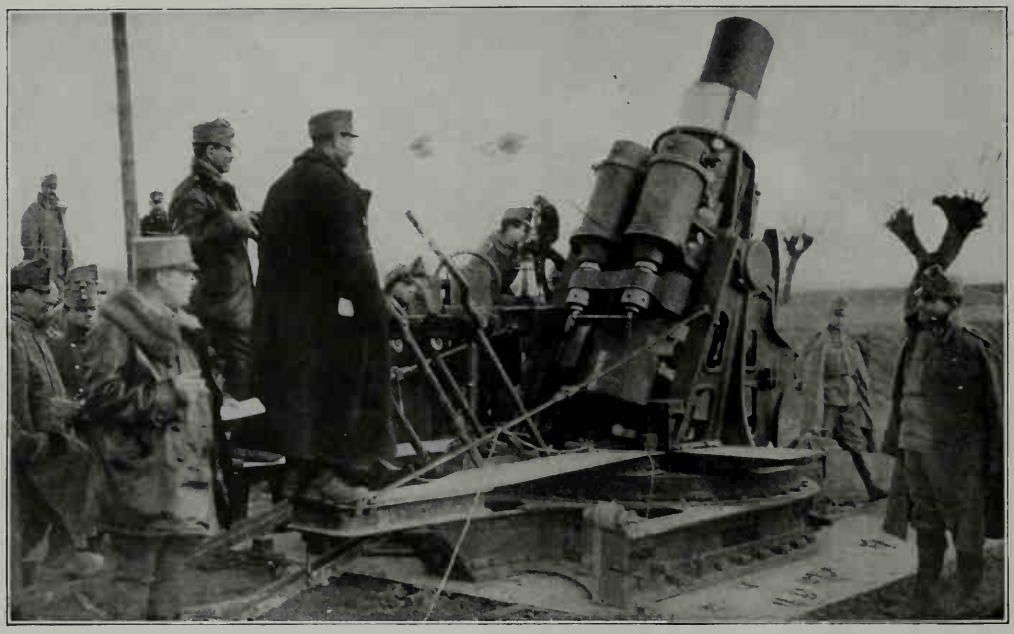
Generally regarded as the ablest general of the war. Joint hero with Joffre of the first Battle of the Marne. He afterwards commanded the British and French forces that fought the Battle of Ypres and saved the channel ports. Appointed generalissimo of the Allied Forces March 29, 1918. He is said to be the ablest strategist living. No general ever commanded such large armies or directed operations on such a vast length of front. It was his continuous succession of assaults from July 18 to Nov. 11, 1918 that crushed Germany and brought the war to a close.



GEN. JOHN J. PERSHING,

Commander-in-Chief of the American Expeditionary Forces.

His great-grandfather came from Alsace, a province that the forces he commanded helped to restore to France. His action in placing his army at the disposition of Gen. Foch made possible unity of command for the Allied armies. He commanded the American offensive that wrested the St. Mihiel salient from German control (Sept. 12, 1918). Also the battle of the Argonne Forest, during October and the first week in November. Gen. Pershing saw service in Cuba; won fame in the Philippines, and commanded the punitive expedition in Mexico in 1916. No American general ever commanded such a large force of men as that under his command in Europe.



A MODERN LARGE GUN.

Heavy guns used in modern warfare are very scientific weapons of destruction. It requires a corps of trained men to operate them. The officer on the side is finding the range. The angle of fire and consequent elevation of the gun are determined with mathematical certainty. Such guns, according to caliber, are effective from ten to twenty miles. The gun that bombarded Paris from a distance of 75 miles was constructed on a different principle.

sian success. Russian military power rested on a shaky foundation. Her soldiers were brave, her generals able, but the whole official life was more or less corrupt. The poison of German propaganda was at work. Her supplies of ammunition were totally insufficient. Immense supplies made in France according to specifications furnished by high officials in Russia did not fit the guns they were intended to serve. There were already signs of the approaching utter collapse of Russia as a world power, then more than a year distant in time. In spite of these drawbacks we read of brilliant but futile efforts of her poorly equipped army to stem the tide of Teuton success that soon began.

The New German Objective

It was absolutely necessary for Germany to come to the assistance of Austria-Hungary and check Russian advance or there was danger that Austria-Hungary would make a separate peace. Entirely independent of that point of view there were military reasons for a vigorous move on the chess board of war in that section. If the Russian armies were defeated, it might retire Russia from the war, or pave the way to a dash on Moscow, or on Poland to the north. Realizing this, German assistance was prompt and ample. For days at a time, on the railroads of East Germany, double-headed trains were passing every fifteen minutes loaded with troops and munitions withdrawn from the western front. This accounts largely for comparative quiet along that line during 1915. German strategy now was to crush Russia.

FEEDING THE GUNS

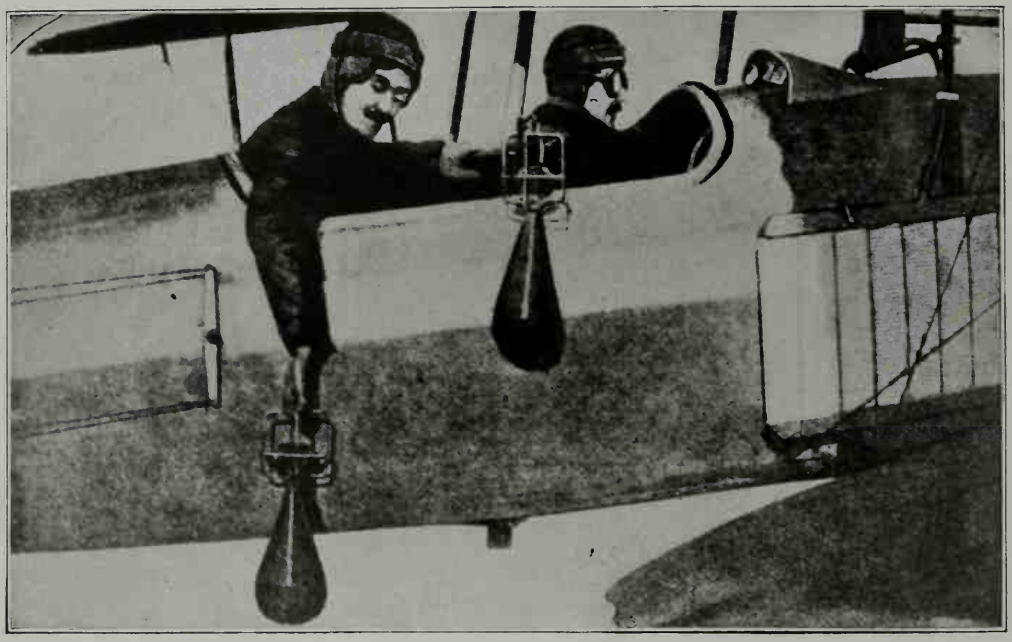
Each of these shells of a modern gun costs from several hundred to a thousand dollars. This shell weighs about 500 pounds. It is a small affair compared with those used in some guns. During the battle of the Somme (1916) it is estimated that for many days the British and French forces alone used 1,000,000 shells a day. Not all of course of this size. In practice many thousands of shells were stored in ammunition dumps to the rear. Notice how they are wheeled to the gun. They have been brought from the dump to the firing line.

German Drive in Galicia

The dash began the latter part of April on a forty-mile section west of Przemysl and continued for two months, forcing the Russians out of Galicia, well up into Poland. Przemysl and Lemberg were recaptured. One Russian army was virtually annihilated, other armies were saved only by most skillful management. But the Russian still confronted the Austro-German forces at the conclusion of the drive. The entire front affected was about two hundred miles; more than 1,000,000 men were engaged. Notice the enormous scale on which battles and drives were conducted in this war. No battles in history remotely approached these titanic struggles. One of the most important is known as the Battle of the Dunajec, May 2, 1915.

The Warsaw Campaign

Warsaw is the capital of Russian Poland. Poland was exposed to invasion from Germany on the north and west, and from Austria-Hungary on the south. Great efforts to capture Warsaw had been made in 1914. At the conclusion of the great drive just described, Warsaw became the center of interest. The Teutons were advancing from the north, west and south. There were several Russian armies variously disposed to arrest their advance. Grand Duke Nicholas was in command. His management of the Russian forces is conceded to have been most able. If he had not been hampered by shortage of ammunition, the result might have been different. Warsaw was taken August 4, 1915. This was followed by the fall of other towns,



A BOMBING PLANE.

The use of airplanes in War had a wonderful development in the European War. This shows one of the many types of bombing planes. The mechanism for dropping bombs were of many kinds and most ingenious in construction. When a machine is two or three thousand feet in altitude and moving at the rate of 100 miles an hour it is extremely difficult to hit a target. Terrible execution was wrought by such attacks.

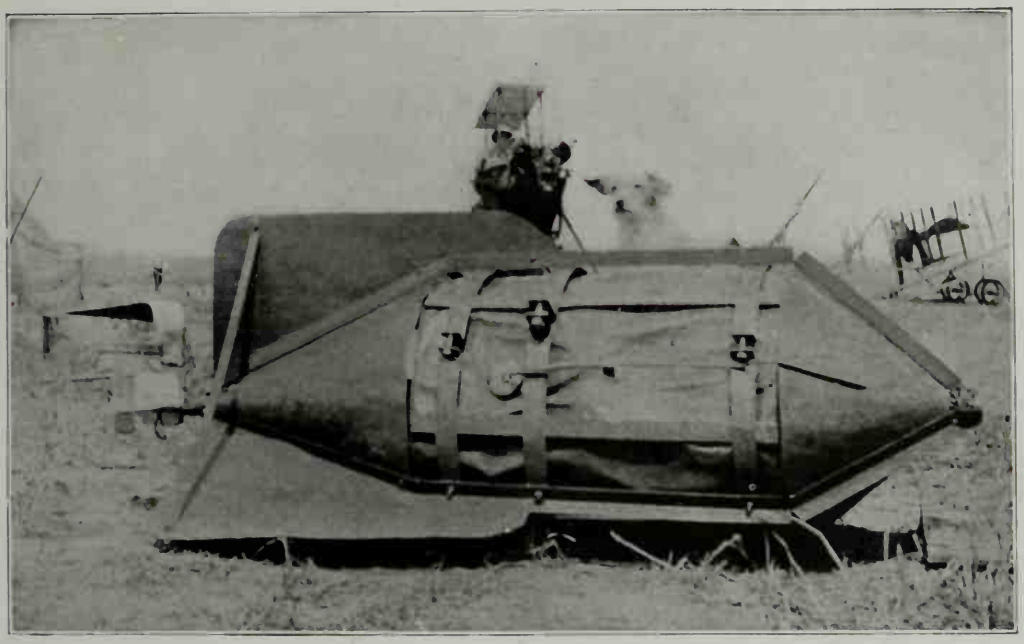
—Grodno, Brest-Litovsk, Vilna and Kovno. Even Petrograd was threatened. In short, Poland was wrested from Russia; but Russia was not crushed, and at the conclusion of 1915 a line of trenches from Riga on the north to Czernowitz on the south still guarded the frontiers of Russia.

The Dardanelles Campaign

This campaign began in December, 1914, and continued during 1915. It was an effort on the part of the Allies to force the Dardanelles (783), capture Constantinople (688), and inflict a crushing blow on Turkey. This effort was a dismal failure for the Allies, but had all the effect of a decisive victory for Turkey and her allies. The fact that the attack was failing had considerable to do with inducing Bulgaria to enter the war on the side of Germany. The immediate result of this step on the part of Bulgaria was the complete crushing of Serbia (Oct. 6-Dec. 2), and this in turn made possible full and free railroad transportation between Germany on the north and Turkey on the south. The net result was to greatly strengthen the Teutonic allies. The conduct of Turkey in the war was marked by most atrocious treatment of the Armenians. Belgium on the north, Armenia on the south, are blood-stained chapters in the annals of war.

EVENTS OF 1916

Apparently believing that Russia was so badly crippled that she could not again peril Austria-Hungary or wrest Poland from the grasp of Germany, the latter country gathered her available resources for a crushing blow in France. Verdun, now in ruins, is about 125 miles slightly



IF THIS FELL ON YOU.

This is a near view of such a bomb though they differ in size. This one is nearly as tall as a man. The flanges at one end keep it upright in its descent. The bomb may contain high explosives, or substances which burst into flame when it explodes and thus fire buildings. London was raided by planes dropping such bombs several times though such practices were prohibited by the Hague Conventions. The armistice was signed just in time to save Berlin from a raid on an extensive scale.

northeast of Paris. It is regarded as the key to eastern France, and is of great historic interest. In former years, it was a very strongly fortified place, according to older ideas of defense. The city itself is situated in the Meuse valley, on both sides of the river; but the main part of the city is on the west bank and surrounds a low hill which is the celebrated citadel of Verdun. It was a wonderful fortress. Redoubts and battlements had been blasted out along the surface. Then the living rock had been dug into. It became a city of catacombs; a labyrinth of passages, chambers, and walls. In addition to the citadel, there were eleven forts as strong as forts could be built in other days, guarding various approaches to the city.

But the war early proved that no fort constructed can long withstand the assault of modern artillery. Realizing this, the citadel and forts had been virtually dismantled, and the defense of Verdun was entrusted to trenches on the hills surrounding the city. About five miles to the north and west of the city is the Charney Ridge, about 1,100 feet high. There are some old forts on that crest. About four miles further to the north is a line of hills separated from each other by deep ravines leading north and south. Two of these hills are known as Dead Man's Hill and Hill Number 304. Intense battles raged around these hills, but note, they are nearly ten miles from Verdun proper. There is also a ridge of hills to the east across a perfectly level valley several miles wide. We have been thus full in description, for there

A MACHINE GUN IN OPERATION.

The European War was accompanied by a great increase in the number and use of machine guns, in trench fighting, armored motor cars, aircraft, etc., and a multiplication of types, including light guns portable by one man. This is a gun of a heavier type, mounted in a tripod. Machine guns can discharge several hundred bullets per minute. Thirty thousand machine guns formed a part of the equipment surrendered by Germany to the Allies at the conclusion of the war.

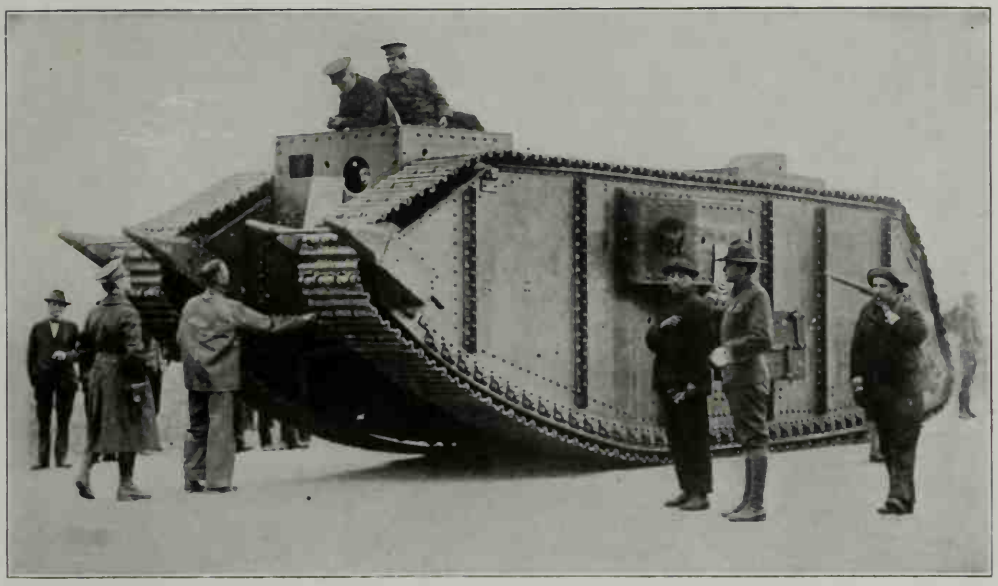
is not a battle known to previous history that is more than a skirmish compared to the Battle of Verdun.

The 1916 Drive on France

This was the point selected by the German General Staff as the place where they would attempt a frontal attack on France. They thought if they could capture Verdun the army of the Crown Prince would be free for a Paris dash, the moral effect of which would be very great. If successful, it would probably force France to a separate peace. Accordingly in the winter of 1915-16 the Teutonic allies gathered near Verdun what was probably the greatest concentration of canon of all description that the world had known up to that time. This necessitated an equally wonderful concentration of ammunition, men and material. Germany was confident of her success. The general staff had planned that it would require four days to take Verdun, only a week or so later Paris would fall. The notables of Germany were present at a council followed by a dinner the night previous to the opening of the attack. Foreign correspondents were invited to be present to witness the triumphant rush of the German troops.

The Seven Month Battle

The battle began February 22, it continued with but short interruption for nearly seven months. We must make an attempt to comprehend the magnitude of this battle, since it will impress on us a vivid sense of the intensity of the World War. Our Civil War is said to be the "most gigantic conflict of modern time" (609), but this single battle alone surpasses the bloody total of that four years' conflict. The number of men engaged was as great as the total number engaged at any one time in the Civil



AN AMERICAN TANK.

The first American built tank appropriately called "America." It was larger and superior in power to any previously constructed. Tanks are one of the most effective fighting machines invented in this war; first used by the British in the Battle of the Somme Sept. 15, 1916 and were the decisive factor in Gen. Byng's advance toward Cambrai. As used by the Allies near the close of the war they proved very effective and contributed in no little degree to the final result. The tanks last used were small, requiring but two men to operate. They are the 20th Century development of the armored knights of medieval times.

War. The number of guns was more, the casualties greatly exceeded the total casualties of the Civil War. The area of conflict, however, was not great,—Verdun and its immediate surroundings. The result was defeat for Germany. German soldiers called it "the grave," and such it was to German hopes in 1916. The second great attempt to crush France failed, and the moral results were as great as those following the first Battle of the Marne.

Naval Battle of Jutland

This was the only important naval battle of the war. The German high seas fleet under Admiral Hipper was engaged by the British fleet under Admirals Jellico and Beatty. Germany celebrated the battle as a great victory, and gave the school children a holiday. Henceforth the command of the seas rested, so they said, with Germany. Yet, as one of their naval experts has admitted since the close of the war, the German fleet was only saved from destruction by the coming night. After that event the German fleet never dared to leave their home base. It remained securely "bottled" up until the end of the war.

The Battle of the Somme

The Battle of the Somme is the name of a series of battles beginning early in July, 1916, and continuing four months. The Somme is a river of northern France passing through Amiens on its way to the channel. Amiens is about sixty-five miles north of Paris. From Amiens as a center describe an arc of a circle of about twenty miles' radius extending from near Beaumont southeast a distance of about thirty-five miles

you will have the battle front as it existed July 1. But the line was very irregular. The main objects of this series of movements were to draw off German forces from Verdun, and to hold German armies in the west and thus allow Russia time to rearrange her forces. Their objects were achieved. It served also to encourage the Allies, since the Germans were forced back day by day. It was shown that it was not impossible to break their lines of trenches. Artillery experts estimate that 20,000,000 shells were used in this series of battles. Notice the immensity of modern conflicts. British success in this series of battles, French success further south and at Verdun, were notice to Germany that Allied opposition was growing stronger and that the British army—a thing of ridicule in 1914—had now become a formidable fighting machine.

Conquest of Roumania (2487)

Roumania is one of the Balkan states. Her entry into the second Balkan war (227) in 1913 was one of the decisive factors against Bulgaria. After the entry of Bulgaria into the World War in 1915 the pressure became very strong on Roumania by Russia to come into the war on the side of the Allies. The summer of 1916 Russia had reorganized her forces, and the war in the west was going against Germany at Verdun and along the Somme. This was deemed an opportune time for Roumania to enter the war and so, with no principles at stake, Roumania declared war on Austria, August 27, 1916. The response of Germany and Bulgaria to this new menace was prompt and decisive. Before the end of the year Roumania was crushed, the capital city, Bucharest, was taken. Roumania was not at all prepared to wage war on the scale this

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THE TERROR OF THE SEA.

This is a near view of a torpedo. It was such a missile as this that sank the Lusitania. The explosive charge is contained in the forward or nose end of the torpedo. It consists of several hundred pounds of gun cotton. It is fired by percussion when the torpedo strikes an object. Back of that is a chamber containing compressed air which runs the propeller at the rear. Such torpedoes range in cost from three to seven thousand dollars each.

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VICE ADMIRAL WILLIAM SOWDEN SIMMS.

Commander of the American Naval forces in the European war. A Canadian by birth, educated in the United States, graduated from Annapolis in 1880. Naval attache to the American embassies at Paris and Petrograd from 1897-1900. From 1900-1909 inspector of target practice of the Bureau of Navigation. He commanded the American Dreadnaught Minnesota from 1909-1911. Appointed to the command of the Atlantic Torpedo Flotilla in 1913. Appointed vice-admiral in 1917. He was present at Gen. Foch's headquarters when the armistice terms were signed.

PRINCE LUIGI AMADEO D'ABRUZZI.

Commander of the Italian Fleet.

Is a brother of Victor Emanuel. Some of the most daring deeds in the history of Naval Warfare were performed by the Italian fleet under his directions. They introduced the use of motor boats for torpedo boats with which they successfully entered the harbor of Pola and sank powerful Austrian dreadnaughts.

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ADMIRAL SIR JOHN RUSHWORTH JELLICO.

In charge of the general direction of all naval business of the British admiralty. Born in 1859, entered the navy in 1872, and has passed through the various grades of naval advancement. He commanded the H. M. S. "Victoria" when it was sunk in 1893. He was second Sea Lord 1912-14. At the opening of the war he commanded the British Grand Fleet. He conducted the arrangements that effectually bottled up the German fleet and rendered it powerless for attack.

war had assumed, but the immediate cause of her easy conquest was the failure of Russia to keep her promises of assistance. Russia, undermined by German intrigue, with traitors at court, was already tottering to her fall.

Extension of the War in 1917

The year 1917 witnessed startling changes in the grouping of the belligerent powers. The three largest republics in the world—China, Brazil, and the United States,—were drawn into the war on the

GEN. SIR EDMUND HENRY ALLENBY.

Commander-in-Chief of the British forces in Palestine since June, 1917. His record in that section was a brilliant one and compelled the total collapse of Turkey, Oct. 31, 1918. At the beginning of the war he commanded a cavalry division and fought through the retreat from Mons, the first battle of the Marne, and practically all the major operations on the West front the first three years.

side of the Entente Allies. Other small nations, members of the Pan-American Union, joined with the United States in this action. Other South American nations showed their sympathy with the United States by severing diplomatic relations with Germany. In Europe, Greece made a formal declaration of war July 2, 1917. Thus all of the Balkan States were finally involved. To complete the record, we must note that Siam in Asia and Liberia in Africa also joined the Entente Allies. Thus before the close of 1917 the far larger part of the world was officially engaged in the war. Let us reflect on this statement. Never before in history had there been such an alignment of nations for purposes of war. It was significant of one thing,—growing resentment against what has long been recognized as the criminal ambitions of Germany to dominate the world.

The United States in War

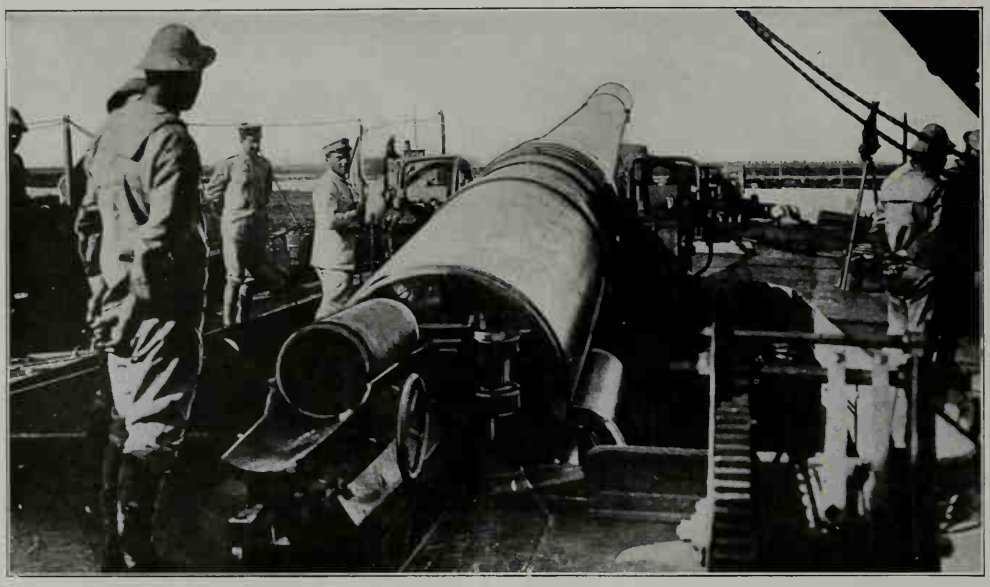
April 6, 1917, will hereafter be one of the most important dates in the annals of this Republic. Then it was that Congress in a joint resolution declared a state of war existed between the United States and Germany, and authorized the President to employ the naval and military power of our country to carry on the war and pledged all our resources to that end. We can now see that the hidden currents of national destiny were tending in an irresistible way to war on the part of the United States; but to many people at the time it came as a surprise. What were some of the causes that eventuated in this weighty step taken by the President resulting in our country putting all its resources at his disposal to win the war?

The Ostensible Reason

It would require far too much space to present a full discussion of the ostensible reason for this joint resolution. It may be summed up as follows: More than two hundred American citizens had lost their lives in the destruction of ships by German submarines in the seas off the coasts of Europe when they entered certain areas that Germany declared to be war zones. Germany admitted that her acts were contrary to international law as it existed prior to the war, but also

GEN. ALLENBY ENTERING JERUSALEM.

He is entering (Dec. 9, 1917) the city through the Jappa (Joppa) gate on foot, following the example of the Crusaders of medieval times. This capture, and later successes in Galilee, completely liberated Palestine from the centuries of Turkish oppression. With the return of peace and under more liberal government we may expect wonderfully interesting archæological investigations in Jerusalem that will clear up interesting points in Biblical history. The liberation of Palestine is one of the happy results of the recent war.



A 15-INCH PEACE PERSUADER.

This is an Italian gun, mounted on a monitor, and was in use on the Piava River and assisted in the great Italian victory of June, 1918. Guns of a caliber never before used were employed in this war. The United States Navy dismounted some of their 16-inch guns, which were loaded on cars of a special construction and sent to the front. The German collapse, however, occurred before they were extensivly used.

claimed that submarine warfare was entirely new and had never been subjected to international decisions; further, it was claimed that submarine war was of such a peculiar nature that it was impossible to follow the old rules of marine warfare. Accordingly she refused to abandon her methods; on the contrary, she prepared for a more vigorous policy. This led to the rupture of diplomatic relations and shortly after to war.

The Underlying Reason

President Wilson in his address to Congress April 2, 1917, did not hesitate to uncover another reason, the truth of which the stern logic of events from day to day soon made apparent. His words were, "We are now about to accept the gage of battle with this natural foe to liberty and shall, if necessary, spend the whole force of the nation to check and nullify its pretensions and power. We are glad . . . to fight thus for the ultimate peace of the world and for the liberation of its people . . . for the rights of nations great and small, and for the privilege of men everywhere to choose their way of life." And he warns us that Germany "entertains no real friendship for us, and means to act against our peace and security at her convenience." It should be added that President Wilson makes it plain that he had in mind,—not the people of Germany themselves, but the military ring that was using the people of that country to realize its dream of conquest and power.

The Verdict of History

In short, the real cause of the participation of the United States in the World's War was the criminal ambition of Germany, seeking to enforce her dream of world dominion by every means at her command, with an utter

disregard of the rights of other nations. Let us make no mistake,—America fought in the European War to preserve her own independence, to safeguard the Monroe Doctrine, to preserve every principle of liberty she holds dear. To stand supinely by and permit Germany to win her war of conquest, meant a war to preserve our own independence later. The Kaiser expressly warned Ambassador Gerard that after the war "I shall stand no nonsense from the United States." It was not only a war in self-defense, but it was the duty and privilege of the United States to take part in a war for liberty, to free the world from the menace of Hohenzollern rule.

American Preparation for War

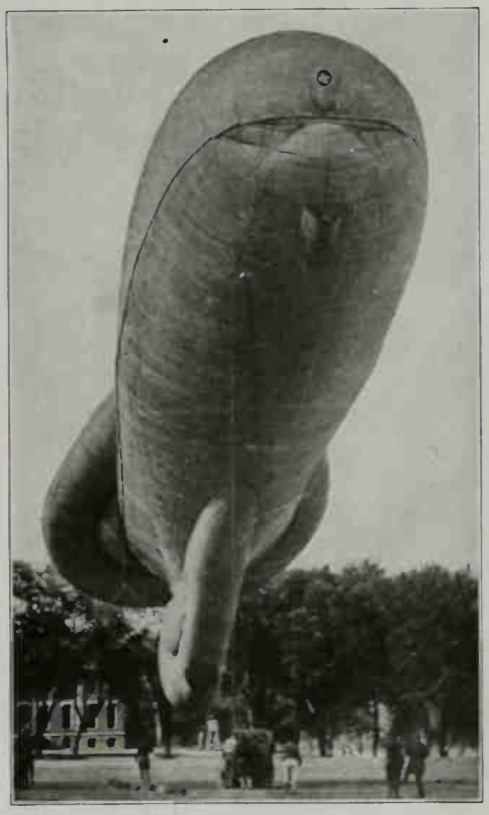
When war was declared in April, 1917, America was almost totally unprepared. But all the pent-up energy of the great republic—the richest nation in the world, with vast resources at our command—were instantly turned to warlike ends. What we accomplished was one of the marvels of history. It was a revelation to the nations of Europe—to the world generally—to see this peace-loving country respond to this call to arms. Never before were such sums of money devoted to war purposes; we estimated in terms of billions, not millions. From the Atlantic to the Pacific, from the north to the south, all the men and money and resources of our country were enlisted for war. This account would not be complete without speaking more in detail of this preparation.

The Services of Distinguished Men

It will remain a bright page in our history the invaluable assistance rendered by public-spirited men, many of whom were at the head of vast business enterprises, who at great personal sacrifices devoted their time and remarkable executive abilities, without compensation, to directing various departments of government activity necessary to marshal and render effective our national resources to the one purpose before our country—winning the war. We have presented in these pages much detail information concerning these representative business men whose services in the cause of liberty were as pronounced as those of our leaders in the field.

Council of National Defense

In August, 1916, a Council of National Defense was organized, composed



MILITARY ELEPHANTS.

A popular name bestowed upon captive, observation balloons. The peculiar shape is one that experience has shown renders such a balloon comparatively steady in light winds. They are semi-rigid, that is they have a framework. The balloon itself is rendered buoyant by hydrogen gas, the rudder part is filled by the wind. They are held in position at a height of about 1,000 feet by slender steel cables, by which they were drawn down. Hundreds of them were used on all the battle fronts for observation purposes.

CHARLES M. SCHWAB.

The Steel master of the United States and of the world. Head of the Bethlehem Steel Company. He accepted the position as Director General of the Emergency Fleet Corporation, and as such directed the manufacture of ships to meet the government needs in the war. His great executive abilities were conspicuously shown in his work. The United States owes him a debt of gratitude.

of cabinet officers and men from civil life eminent in various ways. We are more familiar with the work of various divisions of this council which became prominent after the declaration of war, such as the War Industries Board; the Food and Fuel Control Boards; the Air Craft Production Board; and the Shipping Board, with its Emergency Fleet Corporation. The names of these various boards are explanatory of their purposes. Let us simply say that their work was all important. Their powers were very great,—our industries were controlled and directed to one end, our food and fuel supplies were controlled, we became familiar with such strange terms as meatless and wheatless days, and knew what it was to be restricted in the use of sugar. The Aircraft and Shipping Board controlled operations running into the billions of dollars. The Emergency Fleet Corporation controlled the largest ship building plants in the world, and as their work is to continue the United States will soon possess a navy and merchant marine second only to that of Great Britain.

The Draft

War preparations would have been meaningless unless there was an army to make effective use of them. As we could not wait the slower process of volunteering, recourse was had to a selective draft (852). Under the terms of the law authorizing the draft about 10,000,000 young men registered for army service in June, 1917. From that number, 1,000,000 were drafted in August, 1917, not all of them were physically fit for service and were therefore excused, the first half million of those accepted

EDWARD NASH HURLEY.

Head of the Shipping Board. The government required a vast increase in number of ships to transport its soldiers to France and needed supplies. Billions of dollars were devoted to this purpose. The government commandeered the services of men who had made a great success in executive positions.

BERNARD M. BARUCH.

Chairman of the War Industries Board having a general oversight of the War Industry needs of the government. The Board assisted the purchasing departments of the Army and Navy and assisted the President in fixing the prices of such products as copper, steel, etc. Thus the Board exercised great powers, affecting every home in the land.

were sent to training camps or cantonments in August. In August, 1918, the age limits of those subject to draft were changed to include men from 18 to 45. There are sixteen training camps or cantonments in the United States. It is evident at once that a camp to house and supply the needs of from forty to fifty thousand men requires hundreds of acres of space, hundreds of buildings of various descriptions, including hospitals and assembly rooms, represents a vast outlay of money. The hurried construction of these camps is another illustration of what our country is capable of doing when impelled by necessity.

In Europe

But the war was fought in Europe. Our army had to be sent across the ocean and there supported, and its movements directed them thence. Gen. John J. Pershing was the general in command of the United States forces in Europe, with headquarters in France. The first American troops in Europe arrived in July. In the next fourteen months we sent to Europe nearly 3,000,000. No such movement of troops ever took place before, across 3,000 miles of sea, followed by adequate equipment and supplies, and carried safely through extraordinary dangers of attack—dangers which were alike strange and infinitely difficult to guard against.

Work in France

But this Army had to be supported in Europe. Immense supplies of all kinds had to be transported to France. Harbors had to be dredged, docks built, hundreds of miles of railroad were built.

HERBERT C. HOOVER.

Food Administrator during the war. His powers were very great. Under his direction the people of the United States were fully informed of the need of conserving food for the use of our allies. The price of important cereals was fixed and important and inclusive classes of food were brought under Federal control. The whole country was given an object lesson on the benefit of thrift.

JOHN D. RYAN.

Another prominent business man who responded to the appeal of the government in the trying days of war. He has achieved remarkable success as president of the Anaconda Copper Company. He was appointed head of Aircraft Production Board. Airplanes were rapidly becoming the deciding factor in the war. This shows the importance of Mr. Ryan's work.

Hundreds of locomotives and vast railroad supplies had to be sent across the ocean. Immense training camps were constructed. Large numbers of warehouses and docks were built in French ports. Hospitals were erected, and for the first time in history adequate arrangements were made to care for the social welfare of the soldiers. This was accomplished by various organizations amply supported by public contributions. (See account of John R. Mott's activities, p. 4125.) But at the end of 1917 the Teutonic Allies were quite well aware that the United States was in the war. The immense preparations made, the substantial nature of the same began to have their effect. Official Germany in conversation with Minister Gerard, before the rupture of diplomatic relations, laughed to scorn the thought that the United States could render any military aid worth considering to her allies. Germany in the fall of 1917 was not laughing.

The Collapse of Russia

The collapse of Russia was the second great event of 1917. It was the result of a long train of causes. Let it suffice to say that treachery in high places, backed by German propaganda, had undermined the government. March 15, 1917 the storm broke. The utter overthrow of autocratic rule in Russia was one of those explosive outbreaks, but few of which have accurred in history. In a single day the old order of government passed away never to return in Russia. It was a revolution as thoroughgoing as its prototype, the French Revolution of 1789, and it

DR. HARRY A. GARFIELD.

Former president of Williams College. He was head of the Commission that investigated the cost of wheat production and set the price. Appointed Fuel Administrator August 23, 1917. As such he fixed the selling price of coal at the mines. The entire country was appealed to to save coal in all possible ways. He absolutely controlled the distribution of coal.

SAMUEL GOMPERS.

For many years Mr. Gompers has been president of the American Federation of Labor and as such he won the confidence of both labor and the employers of labor. He was appointed a member of the advisory commission to assist the Council of National Defense. His mission to the labor council of the Allied Nations in 1918 was productive of important results.

was attended with similar scenes of horror. Save for the fact that civilization itself was fighting for life against Hohenzollern absolutism the civilized world would have stood aghast at the bloody scenes of this Russian Revolution.

Its Effect on the War

We are concerned with the revolution only as it affected the war itself. It will be known in history as the rise of Bolsheviki Power in Russia. The result was the withdrawal of Russia from the war. After some months of chaos Germany secured from the disorganized government of Russia the treaty of Brest-Litovsk (signed Mar. 2, 1918), which gave to Germany such political and economic control of Russia that could Germany have ended the war then, giving to the Allies all they demanded in the West, on conditions of holding their gains in the East, Germany would have won one of the greatest victories in history. As a matter of historic interest it may be stated that the Bolsheviki revolution in Russia was arranged by the German General Staff and financed by Germany. It is further known that the treaty of Brest-Litovsk was a betrayal of the Russian people by the German agents, Lenin and Trotsky (heads of the Bolsheviki revolution), acting solely in the interests of Germany. The authority for this statement is contained in official publications by the United States government. The treaty of Brest-Litovsk was abrogated by the downfall of Germany. What the future has in store for Russia, time only will disclose.

Copyright Western Newspaper Union.

JOHN R. MOTT.

Head of the Y. M. C. A. movement the world over and made Director General of the United War Campaign, and head of the board that will direct the social activities for the betterment of soldier life in Europe. This organization represents all the helpful agencies engaged in such work.

The Italian Reverse

Having achieved such signal successes in the East, Russia and Roumania being both disposed of, the German leaders planned a campaign designed to crush Italy. In the summer of 1917 the Italian front was along the Isonzo River in Austrian territory. The test of Italian endurance was at hand. A great force of Austrians and Germans was assembled along the river. As was usual in all Teutonic drives, endeavors were made by propaganda work to break down the morale of the Italian troops. This effort consisted in spreading fearsome accounts of the crushing nature of the blow about to fall, the folly of further resistance, and the advantages to be gained by accepting the generous terms of peace their true friends—their former allies—were ready to grant. This effort had an effect, but Italy was not Russia.

The drive began October 24th. It was a very pronounced Teutonic success, though the great object of the drive was not achieved. In three weeks time the Italians were forced back from the Isonzo to the Piava River line; nearly 200,000 soldiers had been captured, together with immense supplies of all kinds. But yet Italy was not crushed, the German forces were firmly held along the Piava. We should reflect that in the world war millions were engaged and the loss of one or even two hundred thousand men did not mean the end of the war.

The Year of Decision—1918

The Allies could only hope to defend their positions on the west front against the impending offense on the part of Germany, for which preparations on a vast scale were being made, until reinforcement from the United States could reach them sufficient to enable them to take the offensive in their turn. Germany hastened its preparations through the winter months of 1917-18 for they knew that they must win a decisive victory to crush the armies of France and England before the United States could give efficient assistance. It was a race between America and Germany, and America won. With the assistance of the British and French merchant marine and such shipping as could be procured at home the American forces were landed in France in the most astonishing numbers ever recorded. The fears of Germany; the hopes of the allies were alike exceeded by the forces sent across the ocean. The first of July, 1918, there were one million American soldiers in France, and their aid came just in time to avert disaster.

U. S. Becomes Banker for the Allies

From the time the United States entered the war until its close, we were the bankers for the Allies. Our financial transactions were on the same generous scale as our other war activities. Counting the Victory Loan of 1919, we raised $18,500,000,000 by the sale of bonds and every loan was largely over-subscribed. We loaned of that amount, to various Allied Nations nearly $10,000,000,000. These imposing figures are evidence of wonderful financial strength. It is beyond our capacity to realize their significance. If you were to coin a twenty dollar gold piece every second, day and night, without ceasing, it would require almost thirty years to coin pieces to that amount in value. Other nations raised enormous sums of money, but none raised such vast amounts in so short a space of time. But national life and honor and civilization were all at stake.

War Betterment Work

No nation ever made such efforts to safeguard the health and morals of its soldiers as the United States. We took up a line of activity before unthought of. Our soldiers were taken from factories and mines, from offices and fields; they were taken from home surroundings, drilled in cantonments and sent to foreign lands. An effort was made—the first in history—to throw round these boys some measure of home life. The idea was the man behind the gun was the most im-

portant factor in war. Soldiers are simply young men and boys taken from home, given intense drill and subjected to severe discipline. Anything that could be done to make the dislocation of home life less acute was helpful.

Accordingly, many uplift organizations were pressed into service. The Y. M. C. A. was at once enlisted in this work. In each army cantonment there were Y. M. C. A. buildings, provided with their corps of secretaries. There were hundreds of these huts for base troops in France and on the fighting line. In these huts the soldiers could read newspapers and magazines, write letters home, play games, see moving pictures, listen to lectures or attend religious exercises. Over 7,000 men were sent overseas to represent this organization, and the association was spending $7,000,000 a month before the war closed. Lack of space only prevents us speaking in detail of the notable work of the Salvaton Army and other organizations such as the Knights of Columbus. There were more than forty organizations all working to make army life more home like.

German Offensive in 1918

The initiative was with Germany, and the German command selected the British army in position along the Scarpe River north of Cambrai to the Oise River—a distance of 60 miles—as the object of the first drive. The assault began the morning of March 21, 1918. Along the entire front the artillery fire that opened the drive was on a scale never before approached in war. More than 1,000,000 men, the choicest troops of Germany, were ready to assault the British lines and they came on wave after wave, and Germany came perilously near success in their efforts to break through the British lines. The British were driven back beyond the lines of the Battle of the Somme in 1916, important towns were captured, but their lines still held. The first phase of the great battle—known in history as the Battle of Picardy—was a defeat to German hopes.

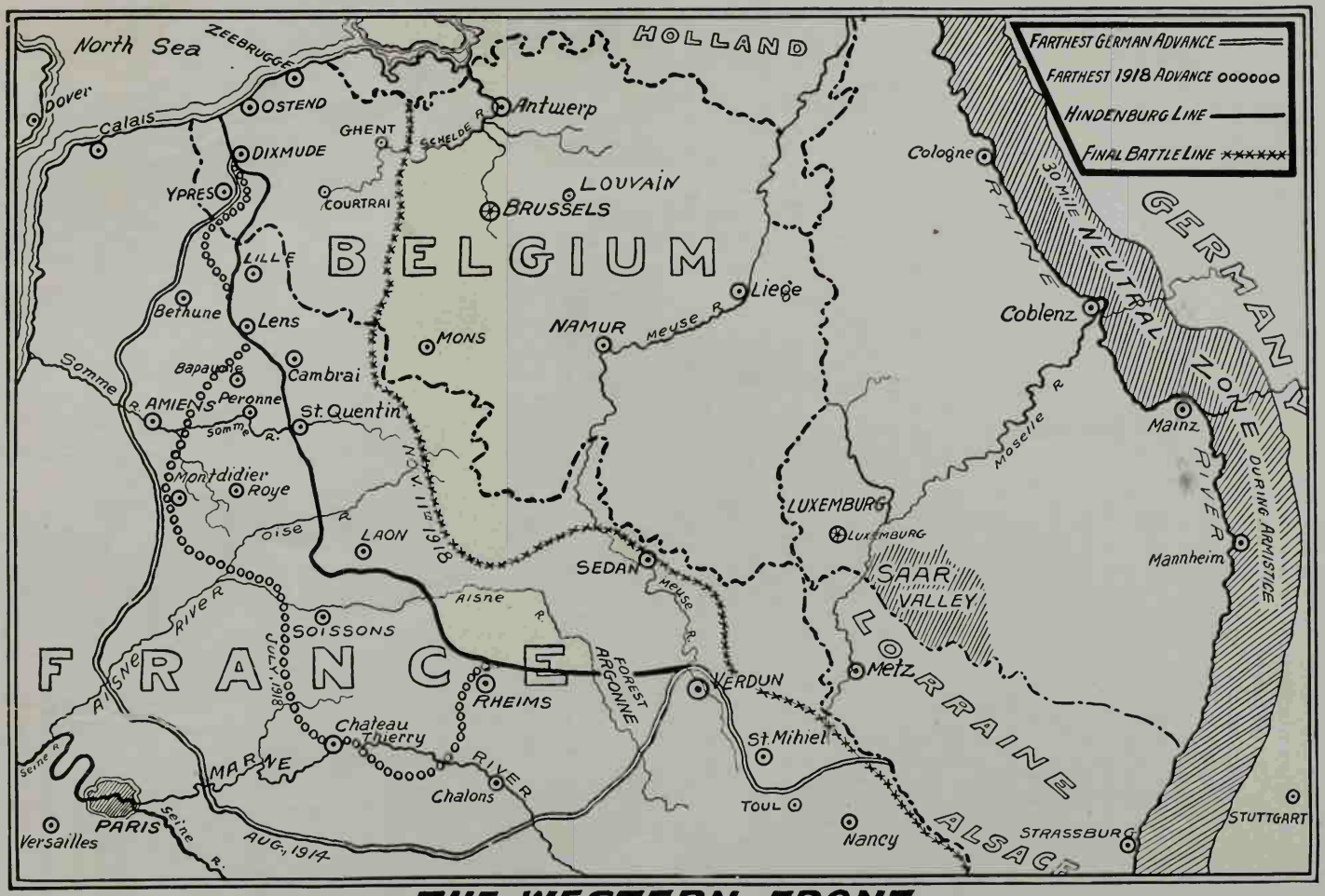
Unified Command

It was apparent to the Allies that the appointment of a generalissimo for their armies was a necessity. The action of Gen. Pershing in placing his forces under the command of Gen. Ferdinand Foch was followed by the appointment of Gen. Foch to the supreme command. Gen. Foch was a veteran of 1871, he had been for many years an instructor in the French Military Academy, and had won fame in the first battle of the Marne. He will hence forth rank as one of the greatest military commanders in history.

His appointment came at what was for the Allies, the darkest hour of the war. The great battle of Picardy was at its height and to all appearances the Germans were steadily winning. Their losses were staggering, but their efforts were, in a large measure, successful. They actually had victory within their grasp, March 23, for that day they broke the lines of the fifth British Army. Had they been able to pursue their advantage contact between the British and French armies would have been lost, the German forces would have poured through the breech and the ending of the war might have been greatly altered. But this chance passed them by—never to return. A few days later (March 28) the greatest of living strategists was in command of the allied forces and, though most anxious weeks followed, it was soon evident that a master mind was directing the defense and preparing a counter blow.

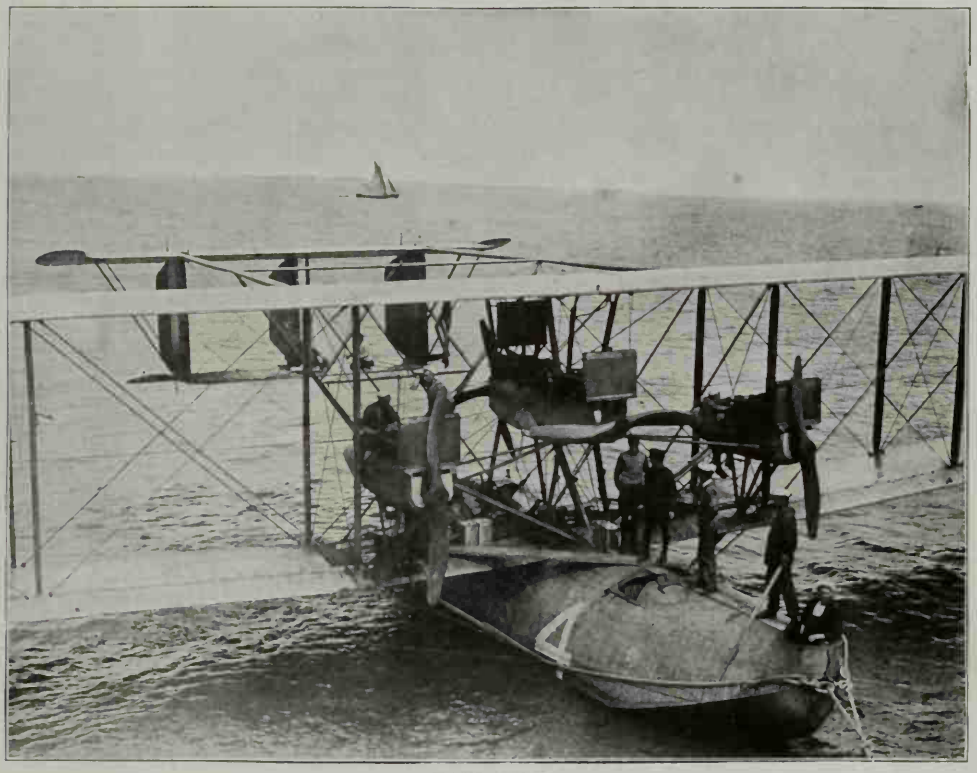
Events in Mesopotamia

To make this review complete, we must glance at events in Mesopotamia,—the garden land of early history, and Palestine,—the land of Biblical Stories. In accordance with the ambitious plans of William II, faithfully pursued from the date of his accession to the throne, Turkey had become, to a surprising degree, the vassal of Germany and as such



THE WESTERN FRONT

early arrayed herself on the side of the Teutonic allies. More than one writer has pointed out the strategic importance of Turkey. A range of mountains guards the entire eastern frontier; on the north are the Black Sea and the Sea of Marmora, and the straits protecting it from attack from Europe. To the West is the long Mediterranean shore line. In ancient times the power that possessed that country ruled the world.



THE NC-4

The first airplane to cross the Atlantic Ocean. Landed at Lisbon, Spain, on May 28, 1919, having traveled 2456 miles in an elapsed flying time of 26 hours and 41 minutes, traveling at an average speed of 92 miles per hour. Under direction of Lieut. Commander A. C. Read.

Its Importance to Germany

It was a saying among the German writers that "Egypt was the Achilles heel of the British Empire," meaning that there was the point from which to attack British possessions in Africa, while Bagdad and the Persian Gulf on the south was the point from which to direct attacks against India and South Africa. In talking about the Bagdad Railroad, the Kaiser grew eloquent in explaining, at a secret meeting of the financiers of Germany, what wonderful opportunities would be theirs "when they had taken possession of India." In addition to her strategic importance, Turkey in Asia was a country rich in minerals and oils, and the fertile valleys of the Tigris and the Euphrates need only the easily rendered aid of irrigation to become again, as of old, a scene of smiling plenty.

Turkey in the War

And so we understand the complacent

readiness with which Turkey entered the war. She needed no instructions from Germany on how to conduct ruthless campaigns. An entire nation was put to the sword. The scenes of Belgium were outdone in Armenia. We have referred to the failure of the allied attempt in the Dardanelles campaign. The result greatly buoyed up Turkey. Their officials proclaimed that Turkey was "the master of Great Britain," which opinion was strengthened by the surrender of the British forces besieged in Kut-el-Amara, a hundred miles below Bagdad, in April, 1916.

British Operations in Turkey

This pleasing fancy was rudely dispelled by British operations in Mesopotamia and Palestine. In Mesopotamia Gen. Mand occupied Bagdad in March 1917 and the entire valley of the Euphrates passed under British control that year. In Palestine the British troops during the year 1917 gradually overran the entire country, taking Jerusalem in December of that year. In 1918 success continued and we read of the remarkable campaign of Gen. Allenby from Palestine towards Syria, and the very heart of the Turkish Empire. Nazareth—the boyhood home of Jesus—was taken in September, Damascus surrendered October 1, in short, Turkey was crushed, the final surrender coming October 31, 1918.

Events in Northern Italy

The Austrian drive in Italy in 1917 had been followed by a season of comparative calm but in June 1918 Germany and her allies made a determined effort to repeat the success of the former year. The great offensive in France was slowing down. If only a decisive victory could be won in Italy it might lead to important results. Accordingly troops were massed for attack along a front of 100 miles on the Piave River where the Austrians had been checked in 1917. This was the last determined effort Austria made. Necessities for further supplies of food was one impelling motive for the assault. The Austrian Commander's orders to his troop bade them "remember the white bread, the fat beeves, and the wine" they had captured in the great drive. But conditions were not at all similar. The Italian army was prepared, there was now no disaffection in the ranks, British, French and American soldiers were with them. American aviators took a prominent part. The drive began June 15. At first it was successful, as nearly all drives were, then it collapsed and was turned into defeat, as was true of all German drives in 1918. The recoil from that drive enabled the Italian armies, under command of Gen. Diaz, to win a most astonishing series of victories. The great defeat of 1917 was wiped out. The Austrian Army was completely crushed and was compelled to make a most humiliating surrender, November 4, 1918.

Events in Bulgaria

As we have seen, Bulgaria entered the war in 1915 being actuated solely by a desire to increase her territory which increase Germany promised should be her reward. As a whole the people of Bulgaria were never in favor of the war, but that did not prevent her soldiers from vying with those of Germany in Belgium, of Turkey in Armenia—in waging war with that ferocious savage brutality which civilized nations were supposed to have long since abandoned. The allied forces in the Balkans were confronting the Bulgarians along a line extending from Salonica westward to southern Albania. Operations along this line began about the middle of September. The results were another series of victories of the same decisive character as those already mentioned in Palestine and northern Italy. The Bulgarian forces were everywhere completely defeated and before the end of the month (September 29) Bulgaria made an abject surrender to Gen. d'Espercey, in command of the Allied forces. This surrender was the first of the series of

surrenders that marked the close of the war.

Concluding Events in France

Returning now to France we will briefly sketch the closing events of the great war. Gen. Foch's strategy was along the same lines as those adopted by Gen. Joffre in the campaign of 1914. He cautiously gave way before the furious assaults of the invaders after compelling them to pay a high price in men for their advance, except however, at vital points. It will be noticed he did not give way at Rheims, before Amiens, or at Ypres. He was saving his reserves for the counterblow and awaiting reinforcements from America which were coming in constantly swelling numbers during the summer of 1918.

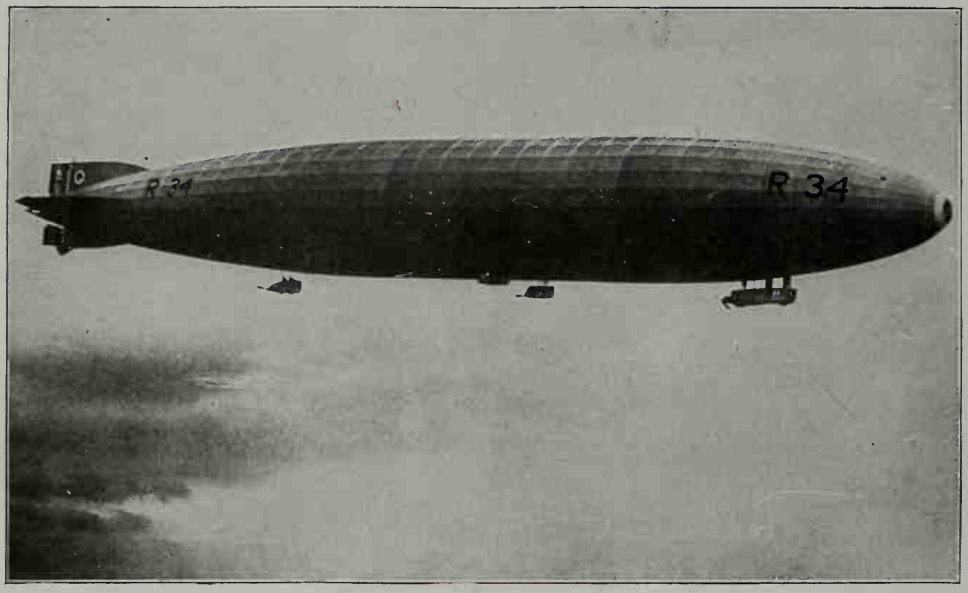
The last desperate thrust of the Germans was that of the forces under command of the Crown Prince along a front of about forty miles to the north and west of Rheims. That section had been weakened by withdrawing men for the defense of Amiens. This was the last notable success of the German forces. They forced themselves forward until their lines formed a great horseshoe pocket convex toward Paris with the furthest point just across the Marne at Chateau Thierry with Rheims and Soissons forming the extremities of the bulging pocket. This advance was made during the week beginning May 27, 1918, which was a most anxious week for the Allies for apparently the Crown Prince was winning his way and at Chateau Thierry he was only about fifty miles from Paris which seemingly was doomed.

The Vickers Vimy airplane piloted 1960 miles across the ocean by Capt. John Alcock and Lieut. Arthur W. Brown in 16 hours and 12 minutes. Starting at St. Johns, N. F., and landing at Clifden, Ireland, on June 15, 1919. The first non-stop airplane flight across the Atlantic.

Chateau Thierry

From this point this review possesses a deeper interest for American readers. We are no longer recounting the successes of foreign troops but of American boys over whose heads waved the stars and stripes. We need not detract one

iota from the just meed of praise of the allied soldiers—the British and French—but our blood courses in livelier measures as we recite the gallant deeds of arms achieved by our American boys, fighting for freedom on French soil. On the morning of June 2, 1918, there commenced to arrive near Chateau Thierry a long line of camions, busses, and trucks hurrying from Paris, loaded to their capacity with American marines, our boys, and give the Americans a lesson. A lesson was indeed given, but the Americans were the instructors. As a result of that battle, Paris was saved, the tide was definitely turned and all Germany knew that the war was lost. When the news was flashed up and down the West front that the Americans had successfully met and repulsed the Germans at Chateau Thierry, allied gloom gave place to cheer and confidence; the



THE R-34.

The giant British airship, the first dirigible to cross the Atlantic, measures 634 feet from nose to stern, and carries three boats below the gas bag. The gas capacity is 12,000,000 cubic feet. Landed at Mineola, L. I., July 6, 1919, with 31 passengers, having traveled 3200 miles in 108 hours, 10 minutes.

soldiers of the seas. That afternoon at five o'clock they met the advancing troops of Germany hurrying on their way to Paris only fifty miles distant.

It is impossible to do justice to the terrible battle that ensued. Let us say that regiments of seasoned German veterans, the best soldiers Germany possessed, were held in their rush, forced back and almost routed by American amateurs whom they affected to despise, whom their officers assured them they could sweep aside like so many undrilled

night was past, the day of victory was at hand, the German dream of conquest was ended.

The Counter Attack

Gen. Foch inaugurated his counter offensive July 18. It is not necessary for our purposes, indeed it would be tedious to give in detail the events of this counter attack which ended in complete victory for the Allies. The knowledge that American soldiers were

as valiant as any that lived exerted a wonderfully bracing effect on the war worn veterans of the Allies. That subtle force known as the morale of an army at once responded and the allied soldiers from the North Sea to the Vosge Mountains went forth to battle with renewed vim, energy and confidence —with that spirit that overcomes obstacles otherwise insurmountable. It was a success from the start. It could not have been otherwise. Thus the victory at Chateau Thierry was of immensely greater importance than what appears on the surface.

Some of the American Operations

If we speak in particular of some American operations it is because such operations appeal to us as American. We must not let pass from our memory the wonderful victory of Belleau Woods. It is impossible to read the accounts of that battle without amazement that the marines succeeded as they did. Henceforth the official name of those woods in France is "Woods of the Marine Brigade." In September came the great American victory at St. Mihiel, a vicious salient above Verdun, on the Meuse River, which had been firmly held by the Germans for four years. The forces under Gen. Pershing completed its elimination in two days, a result that the armies of France had repeatedly tried to attain but in vain. The battle of the Argonne has been styled the world's greatest battle. Certainly it was a battle won against difficulties ordinarily considered insurmountable. It was fought alone the line running from Rheims east through the Argonne Forest to the north, forcing the Germans back and breaking through their defense near Sedan.

Sedan was the scene of the great German victory in 1870 when MacMahon was forced to surrender. But when the American forces reached Sedan, November 2, 1918, the surrender of 1870 was being more than offset by the surrender of Germany. Defeated all along the extended front, her armies in hurried retreat vainly trying to escape the slowly closing jaws of the great pincers faced with utter disaster. German armistice commissioners were permitted to enter the allied lines, and at Senlis, France, was signed, November 11, 1918, an armistice which constituted the most humiliating surrender in history.

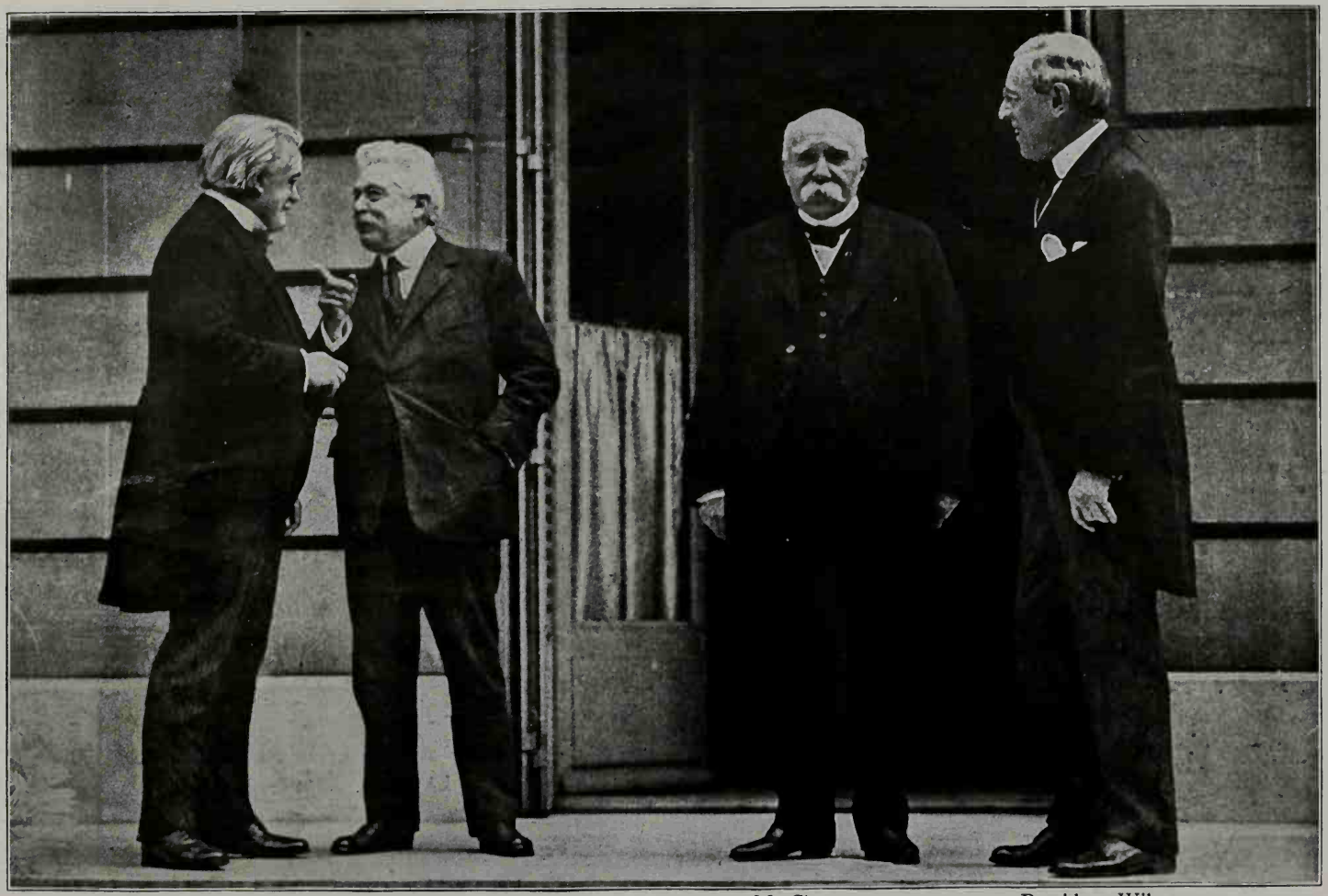
Terms of the Armistice

An armistice simply means a suspension of hostilities; but in the case of Germany—as in the case of all the powers whose surrender we have noted —the armistice was only granted on conditions that made it impossible for Germany to withstand any terms that the allied nations might impose. In general terms these conditions provided for the retirement of all German forces to a line thirty miles to the east of the Rhine, while the forces of the allies occupied the left bank of that river and the important bridge heads, as at Coblenz. In addition, Germany had to surrender the far larger part of her navy, all U-boats, immense supplies of all kinds, and demobilize the most of her armies.

In accordance with these terms, American soldiers were soon keeping "The Watch on the Rhine" at Coblenz while soldiers of the other allied countries were stationed at various places along the river. November 26, 1918, occurred the greatest naval surrender in history—the surrender of the German Navy to the British—seventy-four ships in all—to be interned at Scapa Flow, a land locked harbor in the Orkneys. It may be remarked at this point that—though in violation of the terms of the armistice—the German officers and men left in charge of the ships sank most of them at their anchorage at Scapa Flow, June 21, 1919.

Peace Problems

Hostilities being suspended, the central powers being completely helpless to resist any terms imposed upon them, there remained the truly formidable task



Premier Lloyd George Signor Orlando M. Clemenceau President Wilson

THE "BIG FOUR."

of arranging terms of peace. Only by reflection do we realize the immense difficulties in drafting a treaty of peace to conclude this greatest of all wars. Since virtually all the world had been involved, the majority of the nations of the world were directly concerned in the treaty to be made. In addition out of the disjointed Austria-Hungarian Empire had arisen two new nations with perplexing questions to be settled. Then there was resuscitated Poland. Since the days of Frederick the Great, Poland had ceased to exist as a nation, her territory being divided among the rapacious nations that surrounded her,—Germany, Austria, and Russia. The Polish national spirit, however, survived and Phoenix-like the new Polish nation emerges from the wreck of the autocratic powers that ruled over the fragments of her ancient territory. Questions of the greatest moment concerning New Poland had to be considered.

Wrongs to be Righted

Then there remained wrongs of former wars to be righted. In the days of Bismarck Schleswig-Holstein had been torn from Denmark even as Alsace-Lorraine had been taken from France. In her days of power Austria had ruled a large territory at the head of the Adriatic Sea, inhabited chiefly by Italians, and only recently had forcibly annexed Herzegovina and Bosnia provinces, peopled principally by Servians. What should be done with Germany's colonies? Her possessions in China, in the Pacific and in Africa? Nearly all these questions involved conflicting interests of one or more of the allied nations so that their rightful and practical solution became a matter of extreme difficulty. One very real danger was that the Allies could not agree among themselves.

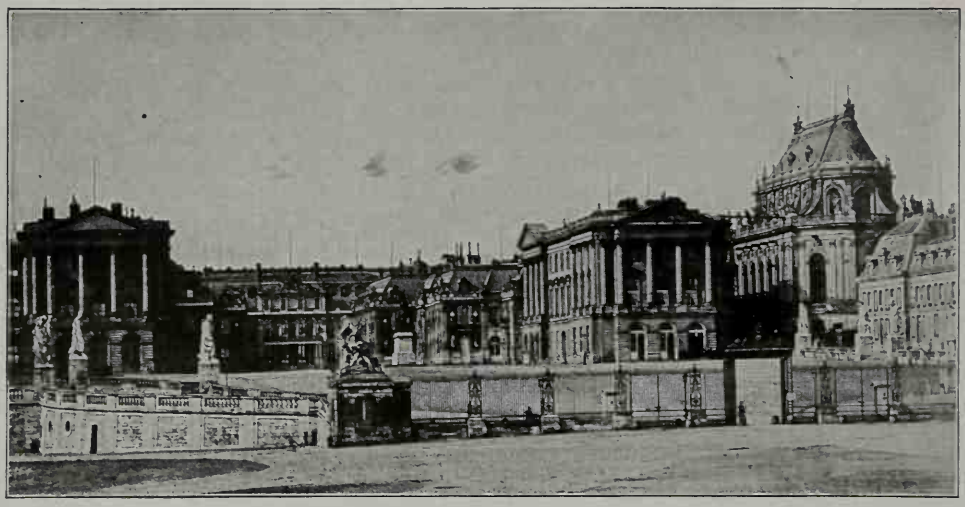
The League of Nations

But there is a new spirit in the world very different from that which inspired the treaty that put an end to the Napoleonic wars of one hundred years ago. It is no longer the rights of ruling families to be safeguarded, but the rights of nations. Accordingly, the treaty provides for the formation of a League of Nations. This is an earnest endeavor to unite the principal nations of the earth in a league, to the end that the rights of all nations—members of the league—shall be safeguarded by all the other members. In effect, there is to be established a Supreme Court of International Law. It is hoped to eliminate wars by inducing the members of the league to submit the issue on which they may disagree to the International Court, and since behind each member of the league is the moral—possibly also the physical—forces of the league, imperialistic nations will hesitate before engaging in wars for conquest. The mere formation of such a league, no matter what experience may demonstrate as to its worth, is a wonderful step in advance. It was however a most difficult one to take.

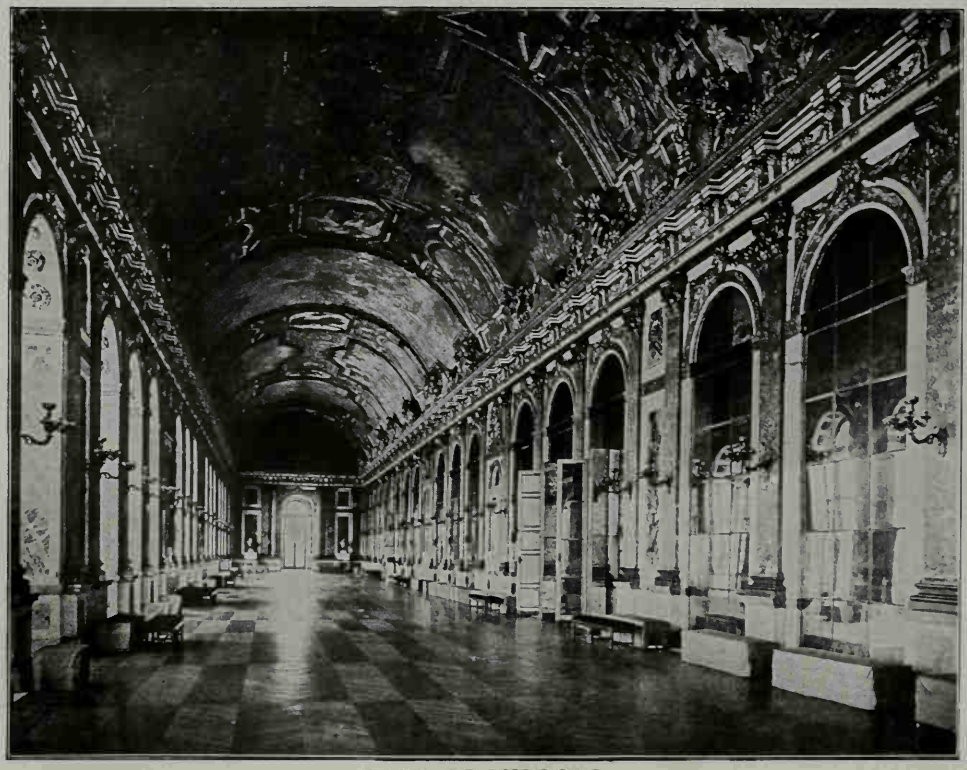
The Peace Congress

To the peace congress the principal allied nations sent their eminent statesmen. President Wilson broke the precedents of more than a century and absented himself from the United States for more than six months, serving as the head of the American Peace Commission. To the Congress came Lloyd George of England, Orlando of Italy, and Clemenceau of France, and more than one hundred statesmen of minor countries. The congress commenced its formal sessions January 18, 1919.

The treaty as finally drafted is the most voluminous one ever formulated, containing about 80,000 words. It was handed to German commissioners May 7, 1919, being almost exactly four years from the sinking of the Lusitania. The terms imposed on Germany are drastic in their severity, and yet they simply redress ancient wrongs; they provide for reparation as far as it is possible for Germany to make them, and they impose on Germany such conditions that, seem-



PALACE OF VERSAILLES.



HALL OF MIRRORS.

Where Peace Treaty was signed June 28, 1919.

ingly, she cannot initiate another war hoping to regain what she has lost.

The Terms of the Treaty

Germany loses in Europe sovereignty over 43,747 square miles of territory, though the nationality of 8,570 square miles of that total will be determined by plebescites in the future. Her colonial empire is completely lost. The total amount of indemnity to be paid is to be determined by a commission; it will be at least $25,000,000,000. The dual monarchy of Austria-Hungary has fallen in ruins. Hungary is a republic of an uncertain nature. Austria has fallen to a third rate power. Turkey is to be dismembered. One of the happiest results is the liberation of Palestine, Mesopotamia, and Armenia from the terrible curse of Turkish misrule. Servia, having acquired Bosnia and Herzegovina, and having united with the Jugo-Slavs in a great part of the northern territory of the former Austrian-Hungarian empire, to form the new state of Jugo-Slavakia is destined to take a most prominent part in Balkan affairs. Germany ceases to exist as a military power, since she is to have no army or navy, or aerial military craft in the modern sense of the word.

Lasting Results of the War

The war has officially ceased, but it has left an indelible influence on civilization. Those who can read the signs of time know that amid the terrible convulsions of war has been ushered in a new age. From it is to date, not simply a new Germany or Poland, but a new epoch in history. Life and times will never be the same as before the war. All know that new theories of government, new ideas as to the relations between labor and capital are being enunciated, and in places are on trial. In Bolshevik Russia the terrible scenes of the French Revolution have been outdone. The dynasty of the Romanoffs has ended in blood. Bolshevism is, however, an unreasonable passing phase of economic life. It is symptomatic of an unhealthy state of mind. Its immediate progenitors are ignorance and oppression. It is a warning, however, to all countries to recognize the needs of a new age and to prepare for them else, if confined, they may come with explosive violence bringing down in ruins the fair structure of modern civilization.

Increased Rights of the People

The war focussing the energies of all the people to one end, is resulting in increased rights for all. This tendency shows itself in extension of suffrage. Women who took such a notable part in war activities are acquiring the right of suffrage. It has shown itself in the overthrow of autocratic governments; in Russia, in Germany, in Austria-Hungary. William II who would rule the world is an exile from Germany. Carl of Austria is in Switzerland. The days of kingdoms and empires are passing. We will hear no more of the divine rights of kings to rule. In the new age at hand, it is to be the rule of International Law in world affairs; of the common people in national affairs; and of personal worth in individual affairs; not, as before, of power, rank and station; and thus this greatest of all conflicts becomes an agency for the advancement of a higher form of civilization.

Versailles

Twelve miles from Paris is the ancient town of Versailles, of interest as the site of the world famous palace of Versailles. Two centuries and a half ago, Louis XIII had at this place a hunting-seat. Louis XIV—whose reign of glory and of shame—formed the pinnacle from whose height France declined to the pitiful times of the French Revolution—caused that hunting lodge, of no great moment, to be transformed into the Imperiol Palace of Versailles that remains the most celebrated palace in Europe. For more than a century here was the home of French royalty; here Louis XVI brought his beautiful bride, Marie

Antoinette, and here they lived until the troubled movements of the Revolution drove them to Paris—and to death. One of the most beautiful halls in this stately palace is known as the Hall of Mirrors.

Its Connection with German History

Flushed with their great victory, German royalty and nobility, generals and diplomats—clad in the flashing regalia of war—came to the Hall of Mirrors, January 18, 1871, and there William I was crowned Emperor of a united German Empire; in that hall also was signed the treaty of peace that put an end to the Franco-German war of 1870. Nearly fifty years passed and once again in that historic hall was signed, June 28, 1919, a notable treaty—perhaps the most momentous one in history—the treaty officially terminating the world war of 1914. This time the treaty was the occasion for, not the formation of an empire, but of a league of nations.

In Connection with the World War

Thus, by strange circumstances this magnificent palace, this marvelous Hall of Mirrors, so intimately connected with stirring events in French history, is equally connected with great events in the history of the world,—the rise and fall of the German Empire; the conclusion of the greatest war that ever convulsed this planet; the formation of a league of nations, the starting point of a new epoch in history, destined to bless all mankind.

Full Text of Revised Covenant of the League of Nations

Preamble

In order to promote international cooperation and to achieve international peace and security, by the acceptance of obligations not to resort to war, by the prescription of open, just, and honorable relations between nations, by the firm establishment of the understandings of international law as to actual rule of conduct among Governments, and by the mantenance of justice and a scrupulous respect for all treaty obligations in the dealings of organized peoples with one another, the high contracting parties agree to this covenant of the League of Nations.

Article I

The original members of the League of Nations shall be those of the signatories which are named in the annex to this covenant and also such of those other States named in the annex as shall accede without reservation to this covenant. Such accessions shall be effected by a declaration deposited with the Secretariat within two months of the coming into force of the covenant. Notice thereof shall be sent to all other members of the League.

Any fully self-governing State, dominion, or colony not named in the annex may become a member of the League if its admission is agreed to by two-thirds of the Assembly, provided that it shall give effective guarantees of its sincere intention to observe its international obligations, and shall accept such regulations as may be prescribed by the League in regard to its military and naval forces and armaments.

Any member of the League may, after two years' notice of its intention so to do, withdraw from the League, provided that all its international obligations and all its obligations under this covenant shall have been fulfilled at the time of its withdrawal.

Article II

The action of the League under this covenent shall be effected through the instrumentality of an Assembly and of a Council, with a permanent Secretariat.

Article III

The Assembly shall consist of representatives of the members of the League.

The Assembly shall meet at stated intervals and from time to time, as occasion may require, at the seat of the League or at such other place as may be decided upon.

The Assembly may deal at its meetings with any matter within the sphere of action of the League or affecting the peace of the world.

At meetings of the Assembly each member of the League shall have one vote, and may have not more than three representatives.

Article IV

The Council shall consist of representatives of the United States of America, of the British Empire, of France, of Italy, and of Japan, together with representatives of four other members of the League. These four members of the League shall be selected by the Assembly from time to time in its discretion. Until the appointment of the representatives of the four members of the League first selected by the Assembly, representatives of (blank) shall be members of the Council.

With the approval of the majority of the Assembly, the Council may name additional members of the League whose representatives shall always be members

THE HOME OF THE LEAGUE OF NATIONS

Geneva, Switzerland, is delightfully situated in full view of the Alps, at the western extremity of Lake Geneva, where the River Rhone issues, and divides the town into two portions. Although now having a population of only about 125,000, Geneva is noted for the great men who claim it as their birthplace. Because of its healthful climate and beautiful scenery it has long been a mecca for tourists who have visited it in great numbers annually.

In 1919 after provisions had been made for the establishment of the League of Nations by the Peace Conference many cities presented their claims for the privilege and honor of being its headquarters, but Geneva had been used by all the warring nations as a central point for the exchange of war prisoners, and the repatriation of the war refugees. It had also been the headquarters of the Red Cross, and other Societies organized for the alleviation of the suffering resulting from the great conflict. These reasons together with the fact that Switzerland had maintained a strict neutrality during the war which won for her the respect of the various belligerents caused the delegates to the conference to select Geneva as the seat of the League of Nations.

of the Council; the Council with like approval may increase the number of members of the League to be selected by the Assembly for representation to the Council.

The Council shall meet from time to time as occasion may require, and at least once a year, at the seat of the League, or at such other place as may be decided upon.

The Council may deal at its meetings with any matter within the sphere of action of the League or affecting the peace of the world.

Any member of the League not represented on the Council shall be invited to send a representative to sit as a member at any meeting of the Council during the consideration of matters specially affecting the interests of that member of the League.

At meetings of the Council each member of the League represented on the Council shall have one vote, and may have not more than one representative.

Article V

Except where otherwise expressly provided in this covenant, or by the terms of this treaty, decisions at any meeting of the Assembly or of the Council shall require the agreement of all the members of the League represented at the meeting.

All matters of procedure at meetings of the Assembly or of the Council, the appointment of committees to investigate particular matters, shall be regulated by the Assembly or by the Council and may be decided by a majority of the members of the League represented at the meeting. The first meeting of the Assembly and the first meeting of the Council shall be summoned by the President of the United States of America.

Article VI

The permanent Secretariat shall be established at the seat of the League. The Secretariat shall comprise a Secretary General and such secretaries and staff as may be required.

The first Secretary General shall be the person named in the annex; thereafter the Secretary General shall be appointed by the Council, with the approval of the majority of the Assembly.

The secretaries and the staff of the Secretariat shall be appointed by the Secretary General, with the approval of the Council.

The Secretary General shall act in that capacity at all meetings of the Assembly and of the Council.

The expenses of the Secretariat shall be borne by the members of the League in accordance with the apportionment of the expenses of the International Bureau of the Universal Postal Union.

Article VII

The seat of the League is established at Geneva.

The Council may at any time decide that the seat of the League shall be established elsewhere.

All positions under or in connection with the League, including the Secretariat, shall be open equally to men and women.

Representatives of the members of the League and officials of the League, when engaged on the business of the League, shall enjoy diplomatic privileges and immunities.

The buildings and other property occupied by the League or its officials, or by representatives attending its meetings, shall be inviolable.

Article VIII

The members of the League recognize that the maintenance of a peace requires the reduction of national armaments to the lowest point consistent with the national safety and the enforcement by common action of international obligations.

The Council, taking account of the geographical situation and circumstances of each State, shall formulate plans for such reduction for the consideration and action of the several Governments.

Such plans shall be subject to reconsideration and revision at least every ten years.

After these plans shall have been adopted by the several Governments, limits of armaments therein fixed shall not be exceeded without the concurrence of the Council.

The members of the League agree that the manufacture by private enterprise of munitions and implements of war is open to grave objections. The Council shall advise how the evil effects attendant upon such manufacture can be prevented, due regard being had to the necessities of those members of the League which are not able to manufacture the munitions and implements of war necessary for their safety.

The members of the League undertake to interchange full and frank information as to the scale of their armaments, their military and naval programs and the condition of such of their industries as are adaptable to warlike purposes.

Article IX

A permanent commission shall be constituted to advise the Council on the execution of the provisions of Articles I and VIII and on military and naval questions generally.

Article X

The members of the League undertake to respect and preserve as against external aggression the territorial integrity and existing political independence of all members of the League. In case of any such aggression or in case of any threat or danger of such aggression, the Council shall advise upon the means by which this obligation shall be fulfilled.

Article XI

Any war or threat of war, whether immediately affecting any of the members of the League or not, is hereby declared a matter of concern to the whole League, and the League shall take any action that may be deemed wise and effectual to safeguard the peace of nations. In case any such emergency should arise, the Secretary General shall, on the request of any member of the League, forthwith summon a meeting of the Council.

It is also declared to be the fundamental right of each member of the League to bring to the attention of the Assembly or of the Council any circumstance whatever affecting international relations which threatens to disturb either the peace or the good understanding between nations upon which peace depends.

Article XII

The members of the League agree that if there should arise between them any dispute likely to lead to a rupture they will submit the matter either to arbitration or an inquiry by the Council, and they agree in no case to resort to war until three months after the award by the arbitrators or the report by the Council.

In any case under this article the award of the arbitrators shall be made within a reasonable time, and the report of the Council shall be made within six months after the submission of the dispute.

Article XIII

The members of the League agree that whenever any dispute shall arise between them which they recognize to be suitable for submission to arbitration and which cannot be satisfactorily settled by diplomacy, they will submit the whole subject matter to arbitration. Disputes as to the interpretation of a treaty, as to any question of international law, as to the existence of any fact, which, if established, would constitute a breach of any international obligation, or as to the extent and nature of the reparation to be made for any such breach, are declared to be among those which are generally suitable for submission to arbitration. For the consideration of any such dispute the court of arbitration to which the case is referred shall be the court

agreed on by the parties to the dispute or stipulated in any convention existing between them.

The members of the League agree that they will carry out in full good faith any award that may be rendered and that they will not resort to war against a member of the League which complies therewith. In the event of any failure to carry out such an award, the Council shall propose what steps should be taken to give effect thereto.

Article XIV

The Council shall formulate and submit to the members of the League for adoption plans for the establishment of a permanent court of international justice. The court shall be competent to hear and determine any dispute of an international character which the parties thereto submit to it. The court may also give an advisory opinion upon any dispute or question referred to it by the Council or by the Assembly.

Article XV

If there should arise between members of the League any dispute likely to lead to a rupture, which is not submitted to arbitration as above, the members of the League agree that they will submit the matter to the Council. Any party to the dispute may effect such submission by giving notice of the existence of the dispute to the Secretary General, who will make all necessary arrangements for a full investigation and consideration thereof. For this purpose the parties to the dispute will communicate to the Secretary General, as promptly as possible, statements of their case, all the relevant facts and papers; the Council may forthwith direct the publication thereof.

The Council shall endeavor to effect a settlement of any dispute, and if such efforts are successful, a statement shall be made public, giving such facts and explanations regarding the dispute and terms of settlement thereof as the Council may deem appropriate.

If the dispute is not thus settled, the Council either unanimously or by a majority vote shall make and publish a report containing a statement of the facts of the dispute and the recommendations which are deemed just and proper in regard thereto.

Any member of the League represented on the Council may make public a statement of the facts of the dispute and of the conclusions regarding the same.

If a report by the Council is unanimously agreed to by the members thereof other than the representatives of one or more of the parties to the dispute, the members of the League agree that they will not go to war with any party to the dispute which complies with the recommendations of the report.

If the Council fails to reach a report which is unanimously agreed to by the members thereof, other than the representatives of one or more of the parties to the dispute, the members of the League reserve to themselves the right to take such action as they shall consider necessary for the maintenance of right and justice.

If the dispute between the parties is claimed by one of them, and is found by the Council to arise out of a matter which by international law is solely within the domestic jurisdiction of that party, the Council shall so report and shall make no recommendations as to its settlement.

The Council may in any case under this article refer the dispute to the Assembly. The dispute shall be so referred at the request of either party to the dispute, provided that such request be made within fourteen days after the submission of the dispute to the Council.

In any case referred to the Assembly all the provisions of this article and of Article XII relating to the action and powers of the Council shall apply to the action and powers of the Assembly, provided that a report made by the Assembly, if concurred in by the representatives of those members of the League

represented on the Council and of a majority of the other members of the League, exclusive in each case of the representatives of the parties to the dispute, shall have the same force as a report by the Council concurred in by all the members thereof other than the representatives of one or more of the parties to the dispute.

Article XVI

Should any member of the League resort to war in disregard of its covenants under Articles XII, XIII or XV, it shall ipso facto be deemed to have committed an act of war against all other members of the League, which hereby undertake immediately to subject it to the severance of all trade or financial relations, the prohibition of all intercourse between their nationals and the nationals of the covenant-breaking State, and the prevention of all financial, commercial or personal intercourse between the nationals of the covenant-breaking State and the nationals of any other State, whether a member of the League or not.

It shall be the duty of the Council in such case to recommend to the several Governments concerned what effective military or naval forces the members of the League shall severally contribute to the armaments of forces to be used to protect the covenants of the League.

The members of the League agree, further, that they will mutually support one another in the financial and economic measures which are taken under this article, in order to minimize the loss and inconvenience resulting from the above measures, and that they will mutually support one another in resisting any special measures aimed at one of their number by the covenant-breaking State, and that they will take the necessary steps to afford passage through their territory to the forces of any of the members of the League which are co-operating to protect the covenants of the League.

Any member of the League which has violated any covenant of the League may be declared to be no longer a member of the League by a vote of the Council concurred in by the representatives of all the other members of the League represented thereon.

Article XVII

In the event of a dispute between a member of the League and a State which is not a member of the League, or between States not members of the League, the State or States not members of the League shall be invited to accept the obligations of membership in the League for the purpose of such dispute, upon such conditions as the Council may deem just. If such invitation is accepted, the provisions of Articles XII to XVI, inclusive, shall be applied with such modifications as may be deemed necessary by the Council.

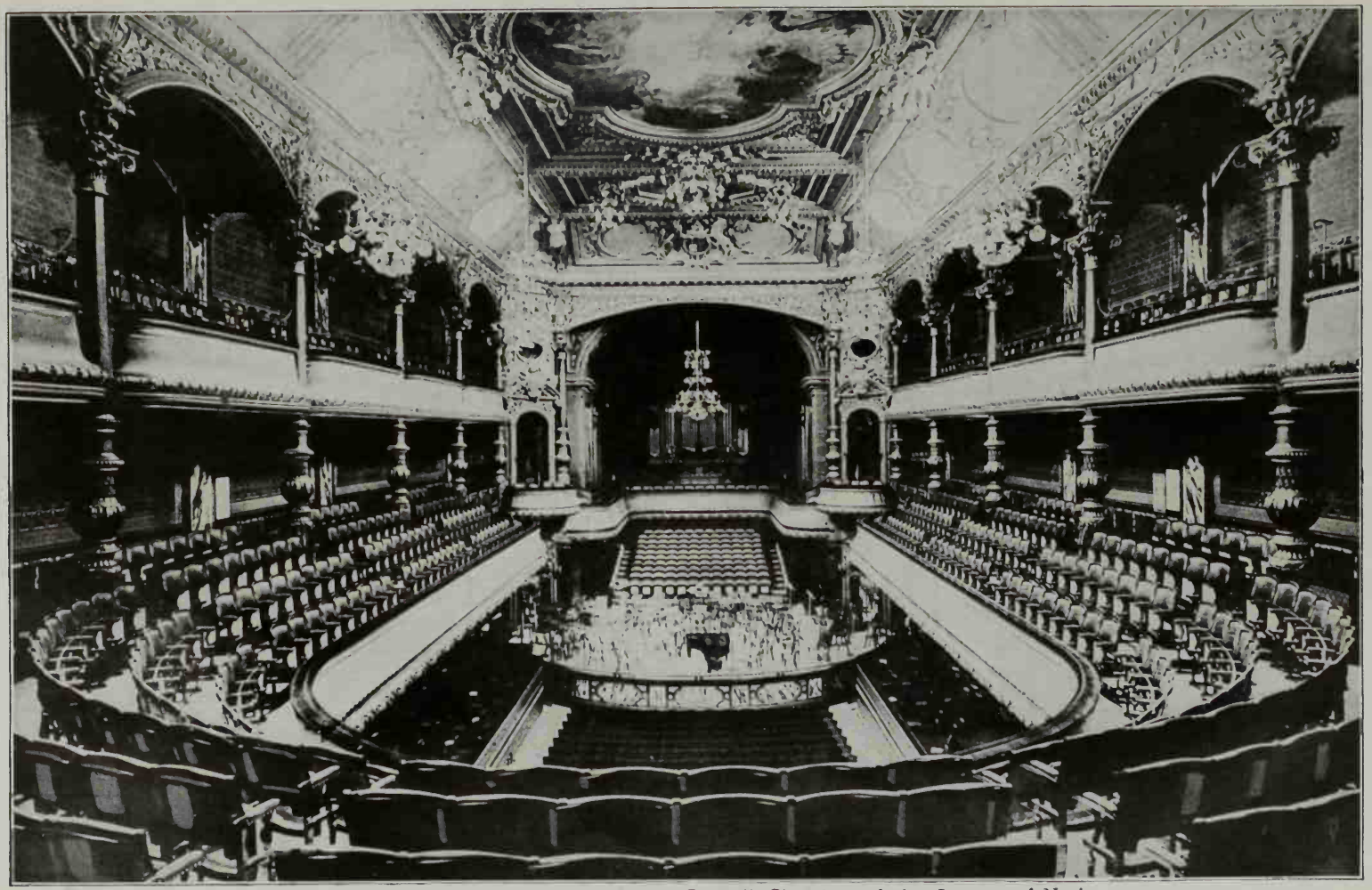
Upon such invitation being given, the Council shall immediately institute an inquiry into the circumstances of the dispute and recommend such action as may seem best and most effectual in the circumstances.

If a State so invited shall refuse to accept the obligations of membership in the League, for the purposes of such dispute, and shall resort to war against a member of the League, the provisions of Article XVI shall be applicable as against the State taking such action.

If both parties to the dispute, when so invited, refuse to accept the obligations of membership in the League for the purposes of such dispute, the Council may take such measures and make such recommendations as will prevent hostilities and will result in the settlement of the dispute.

Article XVIII

Every convention or international engagement entered into henceforward by any member of the League shall be forthwith registered with the Secretariat, and shall, as soon as possible, be published by it. No such treaty or international engagement shall be binding until so registered.



Victoria Hall at Geneva, Switzerland, the Council Chamber of the League of Nations.

Article XIX

The Assembly may, from time to time, advise the reconsideration by members of the League of treaties which have become inapplicable, and the consideration of international conditions whose continuance might endanger the peace of the world.

Article XX

The members of the League severally agree that this covenant is accepted as abrogating all obligations or understandings inter se which are inconsistent with the terms thereof, and solemnly undertake that they will not hereafter enter into any engagements inconsistent with the terms thereof.

In case a member of the League shall, before becoming a member of the League, have undertaken any obligations inconsistent with the terms of this covenant, it shall be the duty of such member to take immediate steps to procure its release from such obligations.

Article XXI

Nothing in this covenant shall be deemed to affect the validity of international engagements such as treaties of arbitration or regional understandings like the Monroe Doctrine for securing the maintenance of peace.

Article XXII

To those colonies and territories which as a consequence of the late war have ceased to be under the sovereignty of the States which formerly governed them, and which are inhabited by peoples not yet able to stand by themselves under the strenuous conditions of the modern world, there should be applied the principle that the well being and development of such peoples form a sacred trust of civilization, and that securities for the performance of this trust should be embodied in this covenant.

The best method of giving practicable effect to this principle is that the tutelage of such peoples be intrusted to advanced nations who, by reason of their resources, their experience or their geographical position, can best undertake this responsibility, and who are willing to accept it, and that this tutelage should be exercised by them as mandataries on behalf of the League.

The character of the mandate must differ according to the stage of development of the people, the geographical situation of the territory, its economic condition and other similar circumstances. Certain communities formerly belonging to the Turkish Empire have reached a stage of development where their existence as independent nations can be provisionally recognized subject to the rendering of administrative advice and assistance by a mandatary until such time as they are able to stand alone. The wishes of these communities must be a principal consideration in the selection of the mandatary.

Other peoples, especially those of Central Africa, are at such a stage that the mandatary must be responsible for the administration of the territory under conditions which will guarantee freedom of conscience or religion subject only to the maintenance of public order and morals, the prohibition of abuses, such as the slave trade, the arms traffic, and the liquor traffic, and the prevention of the establishment of fortifications or military and naval bases and of military training of the natives for other than police purposes, and the defense of territory, and will also secure equal opportunities for the trade and commerce of other members of the League.

There are territories, such as Southwest Africa and certain of the South Pacific islands, which, owing to the sparseness of their population or their small size or their remoteness from the centers of civilization or their geographical contiguity to the territory of the mandatary and other circumstances can be best administered under the laws of the mandatary as integral portions of its territory, subject to the safeguards above mentioned in the interests of the indig-

enous population. In every case of mandate, the mandatary shall render to the Council an annual report in reference to the territory committed to its charge.

The degree of authority, control, or administration to be exercised by the mandatary, if not previously agreed upon by the members of the League, shall be explicitly defined in each case by the Council.

A permanent commission shall be constituted to receive and examine the annual reports of the mandataries and to advise the Council on all matters relating to the observance of the mandates.

Article XXIII

Subject to and in accordance with the provisions of international conventions existing or hereafter to be agreed upon, the members of the League (a) will endeavor to secure and maintain fair and humane conditions of labor for men, women, and children, both in their own countries and in all countries to which their commercial and industrial relations extend, and for that purpose will establish and maintain the necessary international organizations; (b) undertake to secure just treatment of the native inhabitants of territories under their control; (c) will intrust the League with the general supervision over the execution of agreements with regard to the traffic in women and children, and the traffic in opium and other dangerous drugs; (d) will intrust the League with the general supervision of the trade in arms and ammunition with the countries in which the control of this traffic is necessary in the common interest; (e) will make provision to secure and maintain freedom of communication and of transit and equitable treatment for the commerce of all members of the League. In this connection the special necessities of the regions devastated during the war of 1914-18 shall be in mind; (f) will endeavor to take steps in matters of international concern for the prevention and control of disease.

Article XXIV

There shall be placed under the direction of the League all international bureaus already established by general treaties if the parties to such treaties consent. All such international bureaus and all commissions for the regulation of matters of international interest hereafter constituted shall be placed under the direction of the League.

In all matters of international interest which are regulated by general conventions, but which are not placed under the control of international bureaus or commissions, the Secretariat of the League shall, subject to the consent of the Council and if desired by the parties, collect and distribute all relevant information and shall render any other assistance which may be necessary or desirable.

The Council may include as part of the expenses of the Secretariat the expenses of any bureau or commission which is placed under the direction of the League.

Article XXV

The members of the League agree to encourage and promote the establishment and co-operation of duly authorized voluntary national Red Cross organizations having as purposes the improvement of health, the prevention of disease, and the mitigation of suffering throughout the world.

Article XXVI

Amendments to this covenant will take effect when ratified by the members of the League whose representatives compose the Council and by a majority of the members of the League whose representatives compose the Assembly.

No such amendment shall bind any member of the League which signifies its dissent therefrom, but in that case it shall cease to be a member of the League

Annex to the Covenant

I. Original members of the League of Nations.

Signatories of the Treaty of Peace:

United States of America, Belgium, Bolivia, Brazil, British Empire, Canada, Australia, South Africa, New Zealand, India, China, Cuba, Czechoslovakia, Ecuador, France, Greece, Guatemala, Haiti, Hedjas, Honduras, Italy, Japan, Liberia, Nicaragua, Panama, Peru, Poland, Portugal, Rumania, Serbia, Siam, Uruguay.

States invited to accede to the covenant:

Argentine Republic, Chile, Colombia, Denmark, Netherlands, Norway, Paraguay, Persia, Salvador, Spain, Sweden, Switzerland, Venezuela.

II. First Secretary General of the League of Nations: [Sir Eric Drummond.]

COMPENDIUM

OF THE

WORLD WAR

FROM THE

ASSASSINATION OF ARCHDUKE FERDINAND

OF AUSTRIA, JUNE 28, 1914

TO THE

SIGNING OF THE PEACE TREATY

AT VERSAILLES, FRANCE, JUNE 28, 1919

Comprehensive but concise.

Gives at a glance the chronological history of each nation engaged, and the contemporaneous history of all combatants. Shows in the order of their succession the great steps of the war from the first hostilities to the signing of the peace treaty.

The World War involved approximately 95 percent of the world's inhabitants and affected every nation whether they were actively engaged in the war or were merely trying to maintain their neutrality. In order to obtain a correct perspective of this vast battle field it is necessary to correlate the efforts of the various nations involved. The mighty struggles on the blood soaked fields of France and Belgium can be appreciated in their true light only as we follow the surge of the tremendous forces on the Russian and Balkan fronts. The first retreat of the Germans in France was due as much to the Russian offensive as to the brilliant attack of Marshal Joffre, for by weakening their invading armies to meet the onrush of the tremendous Russian forces the Germans opened the way for the counter-offensive of the French.

It would be manifestly impossible for the average reader to retain a comprehensive, accurate impression of the parts played by the various nations in this gigantic struggle if the history of each nation were considered separately. Therefore to give an intelligent, accurate and comprehensive view of the action of the various parts as related to the whole, this chart is submitted.

United States	Great Britain	France—Belgium	Russia
1914 **June-July**			
	July 27—England appeals for delay for mediation conference.		July 27—Mobilize 5 army corps.
		July 29—France prepares for war, concentrating troops near frontier. July 30—France makes further preparations. July 31—Belgium and Holland mobilize to enforce their neutrality.	July 29—Mobilizes 1,250,000 troops. July 31—General mobilization.
August			
	Aug. 1—King George makes final appeal to avert war.	Aug. 1—France orders mobilization. Aug. 2—Belgium refuses permission for Germany to cross. Aug. 3—Belgium appeals to England.	
Aug. 5—President Wilson offers offices for peace. Aug. 5—Congress votes $2,500,000 for relief of Americans stranded in Europe. Aug. 5—U. S. S. Tennessee sails with $6,000,000 in gold for relief of Americans in Europe.	Aug. 5—Kitchener appointed Secretary of State for war. Cut German cables. Aug. 7—Land first troops in France. Aug. 7—Seize Togoland.	Aug. 7—French capture Altkirk. Aug. 9—French capture Muelhausen. Aug. 10—France declares war on Austria-Hungary.	
	Aug. 12—Declares war on Austria.	Aug. 11—French abandon Muelhausen.	
	Aug. 27—Sink Kaiser Wilhelm der Grosse.		Aug. 27—Occupy Tilsit.
	Aug. 28—Naval victory off Heligoland; 5 German warships sunk. Aug. 29—German Samoa accupied by New Zealand troops.		

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
			June 28—Archduke Ferdinand and the Duchess of Hohenberg assassinated at Serajevo by a Servian student.
		July 23—Demands Servia punish assassins and suppress Pan-Servianism.	
		July 25—Notifies Servia that reply is not satisfactory.	July 25—Servia concedes all Austria's demands except participation in investigation of assassination.
	July 27—Refuses England's appeal for conference.	July 27—Partially mobilizes army.	July 27—Servia mobilizes entire army.
	July 28—Mobilizes fleet.	July 28—Declares war on Servia.	
	July 29—Sends troops to Russian frontier.	July 29—Bombards Belgrade.	
	July 30—Sends ultimatum to Russia.		
	July 31—Martial law declared in Germany.		
	Aug. 1—Declares war on Russia. Orders mobilization.		
	Aug. 2—Asks permission to cross Belgium.		
	Aug. 3—Declares war on France and Belgium. Enters Belgium. Seizes Luxemburg.		
	Aug. 4—Declares war on England. Attacks Liege.		Aug. 4—Servians defeat Austrians at Semendria.
			Aug. 5—Montenegro declares war on Austria.
		Aug. 6—Declares war on Russia.	
	Aug. 7—Occupy Liege.		
	Aug. 7—Bombard Liban.		
			Aug. 9—Servia declares war on Germany.
	Aug. 10—Enter France.		
Aug. 15—Japan sends ultimatum to Germany.			
		Aug. 11—Occupy Miechow in Russian Poland.	Aug. 11—Montenegro declares war on Germany.
	Aug. 20—Enter Brussels.		
Aug. 23—Japan at war with Germany.			
Aug. 24—Japan bombards Tsingtau.	Aug. 24—Enter Namur.		
		Aug. 25—Declares war on Japan.	
	Aug. 27—Occupy Lille, Roubaix and Valenciennes.		
Aug. 28—Japan blockades Kiauchau.			
		Aug. 29—Declares war on Belgium.	
	Aug. 30—Capture Amiens.		
	Aug. 31—Drop bombs on Paris.		

United States	Great Britain	France—Belgium	Russia
1914 September			Sept. 1—Defeat Austrians at Lemberg.
		Sept. 2—Allies hold the line of the Seine, the Seine, and the Meuse above Verdun.	Sept. 1—Change name of St. Petersburg to Petrograd.
		Sept. 3—France transfers government to Bordeaux.	
	Sept. 5—England, France and Russia agree not to make separate peace.		
		Sept. 6—**Battle of the Marne.**	
		Sept. 10—Allies drive Germans toward Aisne.	
	Sept. 12—Allies advance against Germans on Aisne.		
	Sept. 14—Allies drive Germans as far as Amiens and Argonne.		
		Sept. 15—Allies occupy Rheims.	
	Sept. 17—Occupy Luderitzruckt, German Southwest Africa.		
			Sept. 21—Bombard Przemysl.
			Sept. 22—Capture Jeroslav.
	Sept. 25—Indian troops land at Marseilles.		
			Sept. 26—Occupy Przemysl.
		Sept. 27—Belgians evacuate Alost.	
October			
			Oct. 3—Victory over Germans at Augustow, E. Prussia.
			Oct. 6—Force Germans to retreat from Wierzbolo-Lyck.
	Oct. 13—Revolt in South Africa.		
		Oct. 14—Allies occupy Ypres.	
		Oct. 15—Allies advance between Arras and Lens.	
	Oct. 17—Cruiser Undaunted sinks 4 German destroyers.		
		Oct. 21-Nov. 10—**First Battle of Ypres.**	
Oct. 23—Organize commission in London to feed Belgians.			Oct. 23—Cross Vistula.
		Oct. 26—Allies advance north east of Ypres.	Oct. 24—Defeat Germans before Warsaw.
	Oct. 27—Dreadnaught Audacious sunk by German mine.		Oct. 30—Declares war on Turkey.

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
	Sept. 1—Defeat Russians at Allenstein.		
	Sept. 4—Cross the Marne.		
	Sept. 5—Take Rheims.		
	Sept. 7—Right flank retreats over the Marne.		
	Sept. 11—Retreat across Aisne.		Sept. 10—Servians take Semlin.
			Sept. 11—Turkey ends capitulations.
	Sept. 22—German submarines sink 3 British cruisers.		
Sept. 25—Japanese troops occupy Weihsen in Shantung.	Sept. 25—Defeats Rennenkampff and reaches Niemen.		Sept. 25—Montenegrins enter Mostar in Herzegovina.
			Oct. 1—Turkey formally abrogates capitulations.
			Oct. 2—Servians check Austrians near the Drina.
	Oct. 3—Crown Prince thrown back on Argonne.		
Oct. 6—Japanese capture Jaliut Island.			
Oct. 7—Japanese capture Yap Island.			
	Oct. 8—Capture Douai.		
	Oct. 9—Capture Antwerp.		
	Oct. 12—Capture Ghent.		
	Oct. 13—Capture Lille.		
	Oct. 16—Capture Ostend.		
	Oct. 17—Attack before Warsaw.		
		Oct. 23—Battle Russians along San.	
	Oct. 24—Unable to advance beyond Yser.		
			Oct. 30—Turkey opens war on Russia.

United States	Great Britain	France—Belgium	Russia
1914 **November**			Nov. 1—General advance beyond the Vistula.
			Nov. 3—Cross San and occupy further point in Poland.
			Nov. 4—Capture Sandomerz.
	Nov. 5—Announces state of war with Turkey. Isle of Cypres annexed. Crush Beyers and Maritz rebellion in South Africa.		Nov. 5—Capture Jaroslau.
			Nov. 7—Defeat Turks near Erzerume.
			Nov. 8—Penetrate into Prussia.
	Nov. 10—Australian cruiser Sydney destroys German cruiser Emden.	Nov. 10-12—**Second Battle of Ypres.**	
			Nov. 15—Advance upon Cracow.
			Nov. 22—Capture Gumbinnen in East Prussia.
			Nov. 29—Bombard Cracow.
December			
	Dec. 1—Rebel Gen. Detret captured.		
			Dec. 7—Defeat Turks near Batoum.
		Dec. 10—French capture Aspach.	
		Dec. 12—Allies drive Germans from Yser.	
	Dec. 16—Seacoast towns raided by Germans.		
	Dec. 18—Protectorate proclaimed over Egypt.		
			Dec. 19—Withdraw across Bzura River.
Dec. 27—Protests to England against stoppage of trade.			
1915 **January**			
		Jan. 4—French victorious in Alsace.	Jan. 2—Invades Hungary.
			Jan. 6—Defeat Turks at Sarikamysh.
	Jan. 8—Replies to U. S. on detention of ship.		
		Jan. 14—French driven across Aisne.	
	Jan. 16—Capture Swakopmind, German West Africa.		

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
	Nov. 1—Squadron defeats British near Chile.		
	Nov. 2—Evacuate left bank of Yser.		
	Nov. 3—Lose 30,000, and fall back from Yser.		
			Nov. 5—Servia severs diplomatic relations with Turkey.
Nov. 7—Japanese capture Kiauchau.			
	Nov. 11—Capture Dixmude.		
	Nov. 17—Fall back in East Prussia.	Nov. 27—Evacuate Czernowitz.	
	Nov. 19—Cross the Meuse.		
	Nov. 23—Retreat in Poland.		
	Nov. 30—Repulsed by Russians at Bzeszow.		
		Dec. 1—Capture Belgrade.	
	Dec. 6—Capture Lodz.		
			Dec. 7—Servians defeat Austrian army.
			Dec. 14—Servians reoccupy Belgrade.
		Dec. 15—Cross Carpathians.	
	Dec. 26—Reoccupy Mlawa.	Dec. 26—Defeated at Deckla.	
	Jan. 25—Cruiser Blucher sunk by British.		

United States	Great Britain	France—Belgium	Russia
1915 **February**	Feb. 2—Places all food on contraband list. Feb. 4—Boer rebels surrender.		
Feb. 11—Warn Germany and England not to attack U. S. ships.			
Feb. 16—Protest against German blockade of British Islands.			
	Feb. 20—Allied fleets bombard forts on Dardanelles.		Feb. 20—Retire from Augustowe.
Feb. 21—Steamship Evelyn sunk by mine.			
Feb. 23—Steamer Carib sunk by mine.			
March	March 1—Declares virtual blockade of Germany. March 8—Great Britain declares cotton contraband. March 10—British capture Neuve Chapelle.		March 1—Defeat Germans at Przasnyoz. March 2—Take Khopa.
April			
April 5—Demands reparation from Germany for sinking of Wm. P. Frye.		The Crown Prince attempts time and again to isolate Verdun. The fighting was almost continuous.	
April 12—Germany asks U. S. to stop exporting arms to Allies.			April 8—Capture Smolnik.
May	May 7—Liner Lusitania sunk by Germans.		
May 13—President demands reparation for American lives lost on Lusitania.			May 8—Port of Libau captured by Germans.
May 31—President Wilson regards German reply on Lusitania sinking as not satisfactory.			May 21—Battle Germans in Western Galicia.
June	June 3—Advance in Mesopotamia.		
June 9—Sec. of State, Wm. Jennings Bryan, resigns.			
June 10—Pres. Wilson sends another note to Germany demanding reparation for Lusitania, and pledge not to repeat attacks on merchant ships.		June 23—French drop bombs on Karlsruhe.	June 30—Defeat Germans in naval battle in Baltic.

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
			Feb. 4—Turks north of Suez routed by British.
	Feb. 5—Attack on Russians at Borjimow fails.		Feb. 5—British defeat Turks at Suez.
		Feb. 10—Fight Russians in Carpathians. Abandon Czernowitz.	
	Feb. 12—Drive Russians in Lotzen district.		
	Feb. 18—Rejects American protest against sinking of neutral shipping.		
	Feb. 22—**Von Hindenburg crushes the Russians in Mazurian Lakes campaign.**		
	March 20—Admit Memel captured by Russians.		March 18—Two British, one French battleship sunk in Dardanelles.
		March 22—Przemysl surrenders to Russians.	
		March 25—Defeated by Russians in Carpathians.	March 23—Allied troops land at Gallipoli.
	April 9—Agrees to compensate U. S. for loss of William P. Frye.		
	April 22—Wins gas attack near Ypres.		April 25—Allies land on both shores of Dardanelles.
May 4—Triple alliance renounced by Italy.	May 2—**Von Mackensen crushes Russians in West Galicia.**		May 4—Turks defeated by Russians in Caucasus.
May 22—Italy declares war on Austria.			
May 24—Italy invades Austria.			May 27-28—Turks sink several British battleships in Dardanelles.
		June 2—Recapture Przemysl.	
June 10—Italians capture Monfalcone.			
	June 14—Gen. Von Mackensen defeats Russians near Czerniana.	June 15—Forces defeat Russians south of Lemberg.	June 11—Servians invade Albania.
	June 29—Cross Russian frontier and advance in Poland.	June 22—Occupy Lemberg.	

United States	Great Britain	France—Belgium	Russia
1915 **July** July 5—Take over wireless station at Sayville, N. Y. July 22—Third Lusitania note sent to Berlin.	July 5—Occupy German Southwest Africa.		July 19—Great battle began in Russian Poland, 6 million men engaged.
August	Aug. 4—Publish notes on blockade.		Aug. 25—Occupy Konarzy Mountains, Caucasus.
September Sept. 1—Germany agrees to sink no more liners without warning. Sept. 10—Dr. Dumba, Austrian ambassador recalled.	Sept. 28—Smash 2d German line at Loos. Sept. 29—Defeat Turks on Tigris River.	Sept. 25—Allies begin big drive on Western Front, smashing German first lines. Sept. 29—French continue advances.	Sept. 8—Czar takes over supreme command of Russian armies.
October Oct. 4—Loan of $500,000,000 to France and England completed.	Oct. 15—Declares war on Bulgaria.	Oct. 16—France declares war on Bulgaria. Oct. 27—Change of French ministry.	Oct. 19—Declares war on Bulgaria.
November Nov. 8—Lansing sends note to Great Britain declaring blockade illegal.	Nov. 2—Asquith defends policies in Parliament.		Nov. 2—Compel Von Hindenburg to retreat.
December Dec. 1—Demands explanation of Austria regarding torpedoing of Ancona. Dec. 30—Austria's note yields in part.	Dec. 15—Gen. Sir Douglas Haig appointed commander-in-chief of the British armies in France. Dec. 19—Withdraw Anzac army from Gallipoli.		Dec. 29—Capture Kashan, Persia.
1916 **January** Jan. 28—Pres. Wilson asks all belligerents to regulate submarine warfare and to disarm merchant vessels.	Jan. 4—Earl of Derby raises 2,800,000 volunteers. Jan. 6—Parliament adopts compulsory military service bill.	Jan. 11—French repulse Germans in Champagne.	Jan. 1—Begins successful offensive in Galicia. Jan. 16—Begin offensive in Caucasus.
February Feb. 4—Germany refuses to admit Lusitania sinking illegal.	Feb. 14—Calls all single men to colors.	Feb. 23—Germans smash French in Woevre district. Feb. 26—Germans take Fort Douaumont.	Feb. 14—Capture Ezerum.
March March 3-7—Congress refuses to warn Americans off armed merchantmen. March 27—Wilson demands Germany explain attack on Sussex.		March 6—French give up Forges, near Verdun. March 7—French give up Fresnes, near Verdun. March 10—Vaux occupied by Germans.	March 20—Capture Ispahan, Persia.
April April 8—Germany denies sinking Sussex. April 18—Ultimatum on Sussex sinking sent to Germany. President Wilson summons Congress.	April 1-2—Raided by German Zeppelins. April 22-28—Revolt in Ireland.	April 2—French regain Caillette wood. April 19—French take offensive near Verdun.	April 18—Recapture Trebizond.

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
	July 14—Capture Przasnysz.		July 19—Turkish redoubt at Dardanelles surrenders to British.
July 19—Italians pierce Austrian front of the Isonzo.	July 31—Capture Mitau.	July 31—Occupy Lublin.	
	Aug. 5—Capture Warsaw.		Aug. 7—New allied army landed at Gallipoli.
	Aug. 18—Capture Korno.		
	Aug. 26—Occupy Brest-Litovsk.		
	Sept. 19—Occupy Viina.		Sept. 22—Bulgaria mobilizes her army.
	Oct. 9—Occupy Belgrade.	Oct. 7—Invades Servia.	Oct. 6—French and British land army at Solonika.
Oct. 19—Italy declares war on Bulgaria. Italian fleet sails for Ægean.			Oct. 10—Bulgaria invades Servia.
			Nov. 6—Bulgarians capture Nish.
			Nov. 30—Bulgaria declares Servian campaign closed.
		Dec. 9—Clear Servia of all Allies.	Dec. 1—British army near Bagdad driven back by Turks.
			Dec. 5—Bulgarians occupy Monastir.
		Jan. 18—Victorious over Russians in East Galicia.	Jan. 9—Allies evacuate Gallipoli peninsula.
		Jan. 23—Occupy Scutari.	Jan. 14—Cettinje taken by Austrians.
	March 8—Declares war on Portugal.		
March 14—Italian armies attack on Isonzo front.	March 16—Admiral von Tirpitz retires.		
	April 10—Begin general offensive near Verdun.		April 28—British garrison at Kut-el-Amara surrenders to Turks.

United States	Great Britain	France—Belgium	Russia
1916 **May** May 5—Germany agrees to stop U-boats if U. S. will compel Great Britain to raise blockade.	May 1—Irish revolt ended. May 17—Sir Roger Casement held for trial.	May 23 — French sieze Fort Douaumont.	
June	June 7—Earl Kitchener drowned. June 29—Sir Roger Casement convicted of high treason.		June 4—Start offensive in Galicia against Austrians. June 15 — Recapture Czernowitz. June 23-30—Defeat Austrians in series of battles.
July July 10—German merchant Deutschland reaches Baltimore.	July 6 — David Lloyd George appointed Secretary for War.	July 1 — **Allies begin grand offensive on Somme.** July 2-21—Allies continue generally successful offensive, capturing thousands of prisoners.	July 22—Break through Germans near Riga. July 29—Capture Brody.
August Aug. 1 — Deutschland sails from Baltimore.	Aug. 3—Roger Casement hanged for treason. Aug. 18—Smash German line on Somme.		Aug. 10—Capture Stanislau.
September	Sept. 14—Allies smash German lines on Bapaume-Peronne line. Sept. 14—Tanks used for first time.		
October Oct. 7 — U-53, German submarine, reaches U. S. Oct. — Washington decides submarines may use American ports.		Oct. 7 — British and French advance in Somme region. Oct. 24—French recapture Fort Douaumont.	
November Nov. 1 — Deutschland reaches U. S. on second trip.	Nov. 12—Capture German positions on Ancre. Nov. 14—Capture Beaumont Hill.	Nov. 1—French recapture Fort Vaux.	Nov. 8—Invade Transylvania.
December Dec. 21—Wilson warns belligerents that U. S. is on verge of war.	Dec. 5—Asquith resigns premiership. Dec. 6—King asks Lloyd George to form new ministry. Dec. 18 — Allies reject German peace proposition.	Dec. 15—French smash German lines at Verdun.	Dec. 1 — **Gigantic battle from the Danube to the Stokhod, and from Bucharest to Kosel.**

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
		May 17—Compel retreat of Italians in Trentino region.	
	May 25—Retake Fort Dauaumont.		May 28—Servian army lands at Salonika.
	June 8—Capture Fort Vaux, near Verdun.		
June 20—Italians stop Austrian drive.	June 21—Halt Russians in Volhynia.		June 23—Arabs revolt against Turks and capture Mecca.
June 30—Italians start offensive along Isonzo.			
Aug. 7—Italians capture Monte Sabotino and Monte San Michele. Aug. 8—Italians capture Garizia.	Aug. 9—Execute Captain Fryatt.		Aug. 15—Allies attack Bulgarians.
	Aug. 27—Declares war on Roumania.		Aug. 27—Roumania declares war on Austria-Hungary.
	Aug. 29—Field Marshall von Hindenburg became chief of staff.		
	Sept. 7—Defeated in East Africa.		Sept. 5-10—Bulgarian and German forces enter eastern Roumania.
Oct. 12—Italians break Austrian lines near Gorizia.	Oct. 1—Defeat Roumanians in Transylvania.		Oct. 2—Roumanians invade Bulgaria and are routed by Field Marshal von Mackensen.
	Oct. 17—Attack Russians near Lemberg. Oct. 18—Attack Russian line from Pinsk marshes to Roumania.		Oct. 16—Allies recognize government set up by Venezelos in Greece. Allies enter Athens, and take over government.
Nov. 1—Italians begin new offensive against Austrians.	Nov. 5—Declares a new Polish kingdom in Russian Poland.	Nov. 9—Forces defeat Russians in the Stokhod region.	Nov. 5—Roumanians resume offensive.
		Nov. 21—Emperor Franz Josef dies.	Nov. 20—Allies take Monastir. Nov. 25—Provisional government in Greece declares war on Germany and Bulgaria.
	Dec. 6—Crown Prince attacks Verdun. Dec. 12—Germany and Allies propose peace. Dec. 24—Clear Dobrudja.		

United States	Great Britain	France—Belgium	Russia
January 1917			
Jan. — At Wilson's request Allies state specific terms for peace; reparation, restitution and security for the future.			
February			
Feb. 3—Wilson severs relations with Germany. Feb. 26—Wilson asks Congress for authority to use force to protect American shipping.			
March			
March 1—German plot to induce Mexico and Japan to invade U. S. revealed. March 7—President decides to arm American ships. March 12—President notifies nations American ships will be armed.	March 12—Capture Bagdad. March 17—Capture Bapaume.		March 14—Russian revolution announced by Petrograd.
April			
April 6—**Declares war on Germany.** German ships seized. April 21-24—French and British envoys arrive in America. April 24—Wilson signs 7 billion dollar war bond bill.	April 9—Capture Vimy Ridge, breaking German line.		
May			
May 5—Balfour addresses joint session of Congress. May 8—One billion dollar appropriation for shipbuilding planned. May 11—Liberty Loan 2 billion started. May 18—President signs draft bill calling all men 21 to 31 inclusive.	May 11—Smash Hindenburg line from Arras to Bullecourt.	May 14—Gen. Petain appointed commander of all French forces.	May 2—Evacuate Mush in Turkish Armenia. May 18—Joint cabinet formed.
June			
Wilson sends message to Russia outlining America's aims. June 4—Root commission reaches Russia. June 8—American commander, Major General Pershing reaches England. June 26—American aviation corps reaches England. June 27—American contingent reaches France.	June 6—Capture Messines-Wytschaete salient.		

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
	Jan. 29—Crown Prince strikes heavy blow at Verdun.		Jan. 5—Teutonic's forces capture Braila, Roumania. Jan. 9—Greek king yields to Entente's demands.
	Feb. 1—Declares U-boat blockade of Great Britain, warns neutrals that all ships entering zone will be sunk.		Feb. 26—British recapture Kut-el-Amara.
	March 3 — Zimmerman, German foreign secretary, admits Mexican-Japanese plot.	March 6—Stands by U-boat warfare.	March — Turks defeated by British in Palestine.
		April 9 — Severs diplomatic relations with U. S.	April 20—British shatter Turks north of Bagdad.
May 14—Italians start new offensive against Austrians. May 24 — Italians continue drive towards Trieste.			
June 16—Italians renew offensive, capturing Corno Caventi.			June 13—King Constantine abdicates throne of Greece.

United States	Great Britain	France—Belgium	Russia
1917 **July** July 9—Places embargo on exports. July 10—National guard called into Federal service. July 13—Draft call for 687,000 men. July 20—Nearly 10 million men listed in national draft.		July 30—In Flanders German lines for 20 miles smashed by French and British.	July 2—Capture Koninchy, Galicia. July 7—Start offensive in Pinsk region. July 12—Capture Kalusz.
August Aug. 3—Takes over all ships over 2,500 tons. Aug. 10—Food control bill signed by Wilson. Aug. 29—Wilson declines Pope's peace proposal on "status quo ante."		Aug.—French successfully assult at Verdun.	Aug. 2—Begin general retreat in Galicia.
September	Sept. 27—Repel Teuton attacks in Ypres region.	Sept. 16—M. Painlene forms new war cabinet.	Sept. 4—Kerensky assumes command of all armies. Sept. 16—**Kerensky declares Russia a republic.**
October Oct. 1—Second Liberty Loan, 3 billion dollars, begun. Oct. 17—Transport Antilles torpedoed while homeward bound.	Oct. 4—Drive wedge in German line in Flanders.	Oct. 25—French successfully attack north of Soissons.	Oct. 4—Premier Kerensky forms a coalition cabinet. Oct. 10—New coalition cabinet assumes control. Oct. 19—Capitol removed from Petrograd to Moscow.
November Nov. 7—War commission arrives in London.	Nov. 19—Lloyd George defends his policies in Parliament.	Nov. 29—An Inter-Allied Conference is opened at Paris.	Nov. 8—Second revolution, the Bolsheviki assuming control. Nov. 10—Nikolai Lenine selected as Premier and Leon Trotzky as Minister of Foreign Affairs. Nov. 14—Kerensky flees.
December Dec. 7—Declares war against Hungary. Dec. 28—Takes "control and possession" of transportation systems.	Dec. 2-5—British withdraw in Cambrai region. Dec. 12—Government orders investigation of Cambrai disaster.	Dec. 1—Supreme War Council holds first session at Versailles. Dec. 9—French repulse Germans in Cambrai region. Dec. 20—French repulse Germans in Lorraine. Dec. 27—Crown Prince repulsed at Verdun.	Dec. 3—Gen. Dukhonin, commander-in-chief is killed by mob for refusing German peace. Dec. 16—Bolsheviki make truce with Germany. Dec. 28—Peace negotiations between Germany and Bolsheviki under way.

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
	July 17—Von Bethman-Hollweg, chancellor, resigns. July 20—New chancellor, Dr. Michaels intimates readiness to talk peace.	July 25—Compel Russians to retreat in Galicia.	
Aug. 14—Pope proposes peace on basis of "status quo ante." Aug. 21—Italians renew drive toward Trieste. Aug. 27—Italians gain north of Gorizia.	Aug. 6—Kuehlman succeeds Zimmerman as foreign secretary.		Aug. 13—Greece definitely at war with Central powers.
	Sept. 3—Aircraft raid England. Sept. 22—Capture Jacobstadt.		
Oct. 26—Italians routed by Austro-Germans.	Oct. 1—Airplane attack London. Oct. 12—Troops land on Oesel and Dayo Islands near Riga. Oct. 30—Count Geo. F. von Hertling becomes Imperial German chancellor.	Oct. 24—Attack Italians on Bainsizza Plateau. Oct. 28—Occupy Gorizia.	Oct. 31—Beersheba, in Palestine occupied by British.
Nov. 9—Gen. Armando Diaz becomes commander-in-chief of the Italian armies.	Nov. 22—Advance against Italians. Nov. 30—Attack near Cambrai.	Nov. 5—Troops cross Tagliamento River in Italy.	Nov. 17—British occupy Jaffa in Palestine.
Dec. 15-19—Austrians and Germans capture Col Caprille and Mount Asolone. Dec. 26—Italians repel assaults. Dec. 30—French drive on Italian front.	Dec. 1—Loses German East Africa, her last oversea possession. Dec. 22—Bombards Rheims.	Dec. 3—Announces that an armistice has been effected in many sectors of Russian front.	Dec. 10—British occupy Jerusalem. Dec. 14—Germany announces an armistice on Roumanian front. Dec. 28—British defeat Turks in Palestine.

United States	Great Britain	France—Belgium	Russia
1918 **January**	Jan. 6 — Advance near Bullecourt.		Jan. 1—Bolsheviki repudiate German peace proposals.
Jan. 7—Selective Draft Law declared constitutional by Supreme Court.		Jan. 11—French advance at Courcy.	Jan. 12—German-Russian armistice prolonged for one month.
Jan. 8 — Pres. Wilson gives the famous "Fourteen Points" on which peace may be made.	Jan. 14 — Air raid on Karlsruhe.		Jan. 18—Constituent assembly opened at Petrograd.
Jan. 28—Baker states U. S. has more than half a million men in France.			Jan. 19—Assembly dissolved by Lenine.
Jan. 31—Certain American units are reported in first line trenches.			Jan. 23 — Russia reject German terms.
February			
Feb. 1—Major Gen. Peyton C. Marsh made Chief of General Staff of U. S. Army.			Feb. 9—Ukraine, one of Russia's new republics, signs peace treaty with Germany.
Feb. 7 — 170 American soldiers lost on torpedoed Tuscania.	Feb. 12—Refuses to recognize Brest-Litovsk treaty of peace.		Feb. 11—Bolsheviki declare war over. Demobilize troops.
Feb. 15—Wilson seizes all cargo space to insure shipments to Europe.			Feb. 25—Germans occupy Reval.
March			
March 2—Americans repulse Teutons in Toul and along Chemin des Dames.			March 3—Brest-Litovsk treaty of peace signed.
March 11 — First All-American raid made in Toul sector.			March 9—Capital moved from Petrograd to Moscow.
March 11—Sec. Baker reaches Paris. Pres. Wilson sends message to Congress of Soviets, Russia.	March 23—Forced to retire at St. Quentin.	March 23 — Paris bombarded by German super-cannon.	March 14—Odessa occupied by Germans.
March 18 — U. S. and Great Britain take over Dutch ships.	March 27—Lloyd George appeals for American reinforcements.	March 25—French come to aid of British.	
		March 28 — Gen. Foch named as Generalissimo of Entente forces.	
April	April 12 — Man Power Bill, containing Irish conscription clause passed.	April 5—French repulse Germans in Montdidier sector.	
April 3—War Council at Washington announces that troops will be rushed to France.	April 13—Repulse Germans in Armentieres regions.		April 8—Germany sends ultimatum demanding Russian battleships disarm or be removed from Finnish waters.
	April 22—Bonar Law presents budget calling for $14,860,000,000.		
April 21 — Drive back Germans near Toul.	April 23—Naval squadrons block Ostend and Zeebrugge.	April 24—Battle for Amiens.	April 30 — Germans at Viborg.
May			
May 1 — Alien property amounting to $280,000,000 taken over.			May 1—Germans occupy Sebastopol.
May 2—Sec. Baker asks for unlimited number of troops.	May 9—Second raid on Ostend.		
May 23—Hoover says 18 million persons have died from starvation since war began.	May 18 — Pro-German plot in Ireland.		
May 28—Drive Germans from Cantigny.			

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
Jan. 1—Italians defeat Austrians at Piave River. Jan. 8-10—French and Italians repulse Teuton attacks.			Jan. 2—British gain in Palestine.
Jan. 22-24—Teuton attacks in Trentino repulsed.	Jan. 23—Make strong attack near Nieuport, but are driven back. Jan. 30—Drop bombs on Paris.		
	Feb. 1—Recognizes Ukraine. Feb. 4—Labor upheaval crushed by military. Feb. 19—Resume invasion of Russia.		Feb. 21—British capture Jericho.
	March 7-12—Airships raid England. March 21—Begin great drive against British from Arras to St. Quentin. March 24—Capture Bapaume and Peronne.		March 9—Roumania signs preliminary peace treaty. March 28—British capture Turk army in Mesopotamia.
	April 10—Germans stopped in Amiens region, begin battle in Flanders. April 15—Capture Messines heights, also Bailleul. April 26—Capture Kemmel Hill, Flanders.	April 15—Count Czernin, Austrian Foreign Minister, resigns.	April 13—Turks occupy Batum. April 27—Turks enter Kars.
May 1—Czechs and Slavs join Italy to fight Austria.	May 13—Proclaims Lithuania as a free state. May 27—Break Allied line between Soissons and Rheims. May 31—Germans reach Marne.	May 13—Austrian and German emperors agree upon military alliance.	May 7—Preliminary peace treaty by Roumania and Central Powers.

United States	Great Britain	France—Belgium	Russia
1918 **June**		June 3—Allies check Germans between Ourcq and Marne.	June 6—Germany demands that Russian Black Sea fleet be returned to Sebastopol.
June 3—U-boats raid American shipping off Jersey Coast.			
June 4—**Hurl back Germans at Chateau Thierry.**	June 11—Bomb important Teuton points.	June 5—French recover ground in Champagne.	
June 7—**Capture Belleau Wood.**			
June 13—Americans and French definitely check German drive.	June 13—Announces German drive in Montdidier-Noyon region ceased.		
June 27—Second draft numbers announced.	June 18—Chancellor asks for credit of $2,500,000,000, making total to date $36,710,000,000.		June 26—Szecho-Slovaks capture Ekaterinberg.
June 29—Troops reach Italy.		June 30—French recognize Czecho-Slovaks as an independent nation.	
July	July 4—Advance on Asiago plateau.	July 4—French attack near Autreches.	July 1—Allies land at Kola.
July 1—Americans advance in Chateau Thierry region.			July 5—Czecho-Slovaks defeat Bolsheviki in Siberia.
July 2—1,019,115 American troops in France or on sea.			July 10—Bolsheviki threaten to join Germany.
July 3—Americans take Vaux.			
July 4—Ninety-five ships launched.			
Capture Hamel and Vaire.			
July 13—Gen. March announces 1,100,000 American troops across.	July 26—Lloyd George announces strikers must work or fight.	July 22—French and Americans compel Crown Prince to summon help from north.	July 16—Ex-Czar shot at Ekaterinburg.
July 18—Smash Germans between Aisne and Marne.			July 18—Allies begin advance in Murman region against Bolsheviki.
July 29—Defeat Prussians on Soissons-Chateau-Thierry front.			
August	Aug. 8—Take offensive between Amiens and Montdidier.	Aug. 2—French and Americans capture Ourcq watershed.	Aug. 5—Allied troops land at Archangel.
Aug. 5—Whip Prussian Guards.	Aug. 10—Allies take Montdidier.		
Aug. 7—Gen. March announces U. S. will raise army of 5 million.	Aug. 13—Recognizes the Czecho-Slovaks as an Allied nation.	Aug. 6—France award Gen. Foch baton of Marshal of France.	Aug. 14—Bolsheviki announce that while still at peace with U. S. they are at war with England and France.
		Aug. 14—French capture Ribecourt.	Aug. 15—American contingent arrives at Vladivostok.
Aug. 17—Gen. March announces there are 1,450,000 American expeditionary soldiers.	Aug. 21—Win in Ancre region.		Aug. 19—German embassy arrives in Petrograd.
	Aug. 23—Begin offensive between Somme and Arras.	Aug. 21—French capture Lassigny.	
Aug. 24—Advance as far as the Rheims-Soissons Road.	Aug. 28—Gompers arrives in England.		Aug. 28—Allies repulse Bolsheviki forces north of Vladivostok.
September			
Sept. 3—Formally recognizes Czecho-Slovaks.		Sept. 12—French and Americans attack both sides of St. Mihiel salient.	Sept. 12—American troops reach Archangel.
Sept. 12—Thirteen million men between 31 and 45, and 18 and 21, register unler new draft.			
Sept. 13—**Eliminate St. Mihiel salient.**			Sept. 15—Leon Trotzky is elected president of the Supreme War Council of Russia.
Sept. 16—Batteries shell Metz.			
Sept. 18—Rejects Austro-Hungarian peace proposal.	Sept. 27—Break Hindenburg line near Cambrai.	Sept. 28—French and Belgians make successful attack near Dixmude.	
Sept. 26—Successfully attack on Champagne front.		Sept. 28—Foch starts offensive between Ypres and North Sea.	
Sept. 28—Reach Brieulles and Exermont.	Sept. 29—Reach Roulers-Menin road.		

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
June 10—Two Austrian dreadnaughts torpedoed by Italians in Adriatic.	June 1—Try to cross Marne, but are repulsed.		
June 19-23 — Italians throw Austrians back over Piave.	June 9 — Launch new drive between Noyon and Montdider. June 12—Gain at Noyon, and at Villers-Cotterets.	June 15—Cross the Piave.	June 16—Bulgarian cabinet resigns.
June 30—Japanese and English land at Vladivostok.	June 27—Von Kuehlman resigns as foreign minister.		
July 3 — Italians defeat Austrians on Piave.	July 4—Starts force to seize Kola.		
July 8 — Italians and French start drive in Albania.	July 12—Continue peace "offensive," saying will consider peace offers if sincerely made.	July 11—Austrian losses in Italian campaign over 250,000.	
	July 17 — Drive toward Paris checked.		
	July 31—Gen. von Eichhorn, German commander in Ukraine, assassinated.		
	Aug. 2 — Begin general retreat in Aisne-Ourcq region.		Aug. 6—Roumania signs treaty of peace with Central Powers.
	Aug. 27—Give up Roye. Aug. 28—Evacuate Noyon and Combles. Aug. 31—Begin retreat in Flanders, giving up Mt. Kemmel.		
	Sept. 2—Retreat on line from Ypres to Peronne.		
	Sept. 5—Retreat on line from Rheims to the sea.	Sept. 15—Austrian peace note.	Sept. 19—British rout Turkish army in Palestine.
	Sept. 13 — Lose 20,000 prisoners, 200 guns in St. Mihiel salient.		Sept. 22—British capture Nazareth, birthplace of Christ.
	Sept. 28—Withdraws to the Ailette.		Sept. 27—Bulgaria asks for peace terms. Sept. 28—Allenby crosses upper Jordan.
	Sept. 30 — Chancellor Hertling resigns.		Sept. 29—Bulgaria surrenders.

United States	Great Britain	France—Belgium	Russia
1918 **October**			
Oct. 5—**Advance in Argonne-Meuse offensive.** Oct. 7—German and Austrian peace proposals received. Oct. 8—President rejects same.	Oct. 8—Attack Hindenburg line between St. Quentin and Cambrai. Oct. 9—Allies capture Cambrai. Oct. 16—Poland recognized as co-belligerent.	Oct. 11-25—Allies successful along almost entire front, Germans retreating.	
November			
Nov. 4—Break German defense in Verdun region. Nov. 7—Capture Sedan. Nov. 8—Premature peace celebration. Nov. 9—Push forward on whole line. Nov. 11—Wilson reads the terms of the armistice to Congress. Great Peace celebrations.	Nov. 9—Capture Mawheuge. Nov. 11—Armistice terms made known.	Nov. 8—Foch meets German peace envoys, refuses request that fighting stop. Nov. 9—French advance on whole front. Nov. 11—**Armistice terms accepted by Germany.**	Nov. 29—A Republic of Lithuania is proclaimed at Riga.
December			
Dec. 2—Wilson informs Congress that it is his duty to go to Paris to discuss the peace terms. Dec. 4—Wilson sails for Europe.	Dec. 5—The British Admiralty estimates that the total war loss by Allied and neutral nations of merchant tonnage was 15,053,786 gross tons; that the new construction was 10,849,527 tons, while 2,392,675 tons of enemy ships were captured.		
1919 **January**			
Jan. 16—Prohibition amendment ratified. Jan. 25—The chief of staff announces that when the war ended on Nov. 11, the U. S. had 1,950,000 men on the western front, France 2,559,000, and the British 1,718,000.	Jan. 21—The Sinn Fein members of Parliament meet at Dublin and declare an Irish Republic.	Jan. 18—The Peace Congress meets at Paris; President Poincare delivers an address of welcome, and Premier Clemenceau is unanimously elected permanent chairman. Jan. 25—President Wilson declares a League of Nations necessary to make present settlements and maintain future peace. Project unanimously adopted.	Jan. 17—Ignace Jean Paderweski becomes first President of Poland.
February			
Feb. 15—Wilson sails home.		Feb. 1—Allies vote to split up Turkey. Feb. 19—Attempted assassination of Clemenceau. Feb. 21—Allies decide to make Germany pay to the limit.	
March			
March 4—Wilson sails for France. March 18—Wilson insists on inclusion of League in Peace Treaty. March 27—New league draft.		March 29—Wilson refuses to join France in war on Bolsheviki.	

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
	Oct. 3—Evacuate Lens and Armentieres. Oct. 16—Constitution amended; consent of Federal Council and Reichstag required for peace treaties and declaration of war.		Oct. 4—King Ferdinand of Bulgaria abdicates. Oct. 5—New King Boris of Bulgaria orders demobilization.
Oct. 25—Italians begin big drive against Austrians. Oct. 29—Italians break Austrian defense.	Oct. 25—Ludendorff resigns. Oct. 28—Kaiser approves of transferring his "fundamental rights" to the people.	Oct. 15—Czechs in Prague revolt. Oct. 18—Emperor Charles proclaims plan for federalization of Austria. Oct. 31—Asks for armistice.	Oct. 30—Turkey granted armistice. Oct. 31—Turkey surrenders unconditionally.
	Nov. 7—Bavarian Republic proclaimed. Nov. 7—Germany asks for armistice terms. Nov. 7—Revolt breaks out in Germany. Nov. 9—Kaiser abdicates. Nov. 11—Kaiser and Crown Prince flee to Holland. Von Hindenburg places himself and army at disposal of new peoples government.	Nov. 4—Austria accepts peace terms. Nov. 12—Emperor Charles abdicates. Nov. 16—New Czecho-Slovak Republic is proclaimed. Nov. 17—A Hungarian Republic is proclaimed at Budapest.	
	Jan. 10—A republic is proclaimed in Luxemburg. Jan. 16—Dr. Karl Liebknecht, leader of the Radical Socialists, and Rosa Luxemburg are killed. Jan. 21—Under the proposed new constitution Germany is to be divided into eight federated republics. The president is to be elected by the people for a term of seven years.		
Feb. 16—Italy rejects mediation with the Jugo-Slavs.	Feb. 11—Frederick Ebert is elected first president of the German state.		
March 20—Japan raises race issue. March 21—Italy demands Fiume.	March 7—Germany refuses to give up ships. March 8—Germany agrees to give up ships on promise of food.		

United States	Great Britain	France—Belgium	Russia
1919 **April**		April 4—King Albert asks $2,000,000,000 advance. April 19—"Big Four" deadlocked over Fiume. April 21—Supreme Council takes up Shantung issue. April 28—Japan drops race issue question.	April 5—French evacuate Odessa. April 22—Poles win victory over Bolsheviki near Vilna.
May May 11—"Victory Loan" over-subscribed. May 27—U. S. NC-4 reaches Lisbon, first airplane to cross Atlantic.	May 1—British budget calls for $7,174,550,000. Public debt given as $36,175,000,000. Trouble in Ireland.	May 4—"Big Four" invite Italians back to conference. May 7—Peace treaty submitted to Germany.	May 6—Finland recognized by Great Britain. May—Finland recognized by U. S.
June June 16—U. S. troops defeat Villa at Juarez. June 29—Wilson sails for home. June 30—"War-time prohibition" goes into effect.	June 15—Alcock and Brown make first non-stop flight across Atlantic. June 21—German fleet interned at Scapa Flow sunk. June 25—Eamon de Valera, President of the Irish Republic, arrives in New York to plead Ireland's cause.	June 12—It is agreed that Germany may be admitted to the League upon the establishment of a stable government and the fulfillment of the Peace Treaty. June 16—The Allies make reply to Germany's counter-proposals. June 28—Peace Treaty signed by the Allies and by Germany at Versailles.	June 12—A note is sent by the Council of Four to Admiral Kolchak extending him help on condition that he summon a constituent assembly. June 12—Lithuanians and British victorious over Bolsheviki. Admiral Kolchak suffered severe reverses by Bolsheviki.
July July 10—Wilson addresses the Senate.	July 6—R-34 crosses the Atlantic.	July 1—New Council of Four formed. July 12—Allies lift German blockade.	July 14—Bolsheviki capture Ekaterinburg.

AMERICA'S PART IN WAR

American participation is summarized in the report in the following table:

Total armed forces	4,800,000	American battle deaths in war	50,000
Men who went overseas	2,086,000	American wounded in war	236,000
Total registered in draft	24,234,021	American deaths from disease	56,991
Total draft induction	2,810,296	Total deaths in the army	112,422
Cost of war to June 30, 1919	$30,177,000,000		

Italy—Japan	Germany	Austria-Hungary	Balkans—Turkey
April 2—Japan asks full equality in League. April 24—Orlando withdraws from conference and returns to Italy. April 29—Italian deputies vote confidence in Orlando.	April 19—General strike in Berlin settled. April 21 — Belgium refuses to prosecute the Kaiser. April 26 — Martial law proclaimed throughout Bavaria.	April 18 — U. S. sends first ambassador to Czecho-Slovakia.	April 18 — Greece and Jugo-Slavia conclude a treaty of alliance. April 23 — Czecho-Slovaks, Rumanians and Jugoslavs advance on Budapest. April 23—Montenegro becomes a part of Jugo-Slavia.
	May 1—German envoys arrive in Paris. May 2—Munich Communist government overthrown. May 2—Von Hindenburg resigns.		May 10—Truce effected between Rumania and the Russian Soviet government.
June 12 — Japan sends war-ships to Shanghai. June 16—Italian forces advance in the Klagenfurt region against Jugo-Slavs. June 20 —Orlando resigns. Nitti selected as prime minister.	June 15—Germany makes counter proposals to peace treaty. June 25 — Germany selects and instructs delegates to sign peace treaty. June 30—German Reichstag submits budget of ninety billion marks, contemplating confiscating of estates and fortunes.	June 7—Thousands killed by Bolsheviki in Hungary. June 12 — Communists rule in Austria. June 15—Czecho-Slovaks defeat Hungarian Soviet troops. June 16—Riots in Vienna.	June 1—Bulgaria threatened with revolution. June 28—Peace Conference takes up Bulgaria, Turkey and Austria-Hungary treaties. June 29—Peace Conference refuses to recognize Turkey as a nation and dismisses delegates.
	July 9—National Assembly ratifies Peace Treaty.	July 10 — Austria requests admission to the League.	July 7 — Bulgaria and Greece enter into a defensive alliance. July 14—Turkish leaders condemned to death for war activities.

HUGE TOTAL OF DEATHS

Best information obtainable by the general staff places the total battle deaths for all belligerents at 7,450,200, divided as follows:

Russia	1,700,000	Serbia and Montenegro	125,000
Germany	1,600,000	Belgium	102,000
France	1,385,300	Roumania	100,000
Great Britain	900,000	Bulgaria	100,000
Austria	800,000	United States	50,000
Italy	330,000	Greece	7,000
Turkey	250,000	Portugal	2,000

HOW THE NATIONS OF EUROPE HAVE BEEN AFFECTED BY THE WORLD WAR

GREAT BRITAIN, under the guise of mandate rule—which term denotes an uncertain and varying degree of control—has enormously increased her sphere of influence in Africa and in Asia Minor. Mesopotamia—now known as the Emirate of Irad—and Palestine are under her rule. There has also been a change in national thought in progress in Great Britain that renders a return to pre-war conditions impossible.

FRANCE regained her old provinces of Alsace-Lorraine with their important coal and iron deposits and has also, by mandate rule, greatly extended her political influence in Africa and over Syria, one of the most fertile provinces of the former Turkish Empire in Asia. France now exercises a vastly greater influence over the diplomatic life of Europe than before the war. The problem of reconstruction in France is appalling.

GERMANY has lost large sections of her home empire, all her colonies, her navy and has now consented to pay, as reparation, the enormous sum of 132,000,000,000 gold marks, extending over a prolonged period of years. Her system of government has been revolutionized, but the Republic is becoming more firmly established, the hopes of the monarchists are fading, and the danger of radicalism is becoming more remote. A quiet future seems assured.

RUSSIA. We cannot justly ascribe the tremendous changes of recent years observable in Russia to the war itself. Advantage was taken of the disturbed conditions accompanying the war to bring about the stupendous changes that have taken place. The Russia of 1914 is as utterly extinct as the strange animal forms of earlier geological times. It is impossible to make definite statements concerning that country or to forecast with any certainty its future.

THE BALTIC NATIONS, Esthonia, Latvia, and Lithuania came into being as a result of the war. They have now won recognition from the League of Nations and are at peace with Russia.

POLAND. In the annals of history there is not a more interesting nation than Poland that lives again after more than a century of existence divided among, and oppressed by three nations, using all their energies to crush Poland's national spirit. But Poland is now one of the strong nations in Europe, she has just adopted a new and liberal constitution, is at peace with Russia, has made an alliance with France, and seems destined to play an important part in the New Europe.

ROUMANIA. Before the war, Roumania was a small nation in the Balkans. Now she is a strong, compact nation with a territory about double what it was in the old days. She won her national aspirations by the Allied victory in the war. She unites in one nation all the Roumanian people in Europe.

CZECHO-SLOVAKIA. This is another new nation born in the shock of war. This nation had to meet great problems of construction at the very start in national life, but they have been successfully met. The two principal divisions of the national—Bohemia and Slovakia—are growing together and need only peace to develop into a strong nation.

JUGO-SLAVIA. This is in effect a new nation consisting of a number of provinces released from Austrian control, grouped under the hegemony of Serbia. Just as it required many years for the different states of our country to develop a national consciousness, a sense of unity, so it will take many years for the several provinces of Jugo-Slavia to grow into one strongly united country.

ITALY emerged from the war with a very substantial increase of territory and possessing a much stronger position, strategically, for she now controls both shores of the Adriatic. The provinces torn from Austria at the head of the Adriatic are the **Italia Irredenta** of earlier years.

AUSTRIA and **HUNGARY** are two pitiful fragments of the Dual Monarchy that fell into ruins during the war. They are surrounded by strong nations composed of people over whom they once ruled—whom they once oppressed—and both countries—especially is this true of Hungary—secretly cherish the hope that by some fortunate stroke they will regain their lost power.

GREECE received a large addition of territory, and now extends through Thrace, cutting off Bulgaria from the Aegian Sea, and unless the treaty of Sevres should be changed, will exercise control over a large section of territory around Smyrna in Asia Minor.

TURKEY. As a result of the war, Turkey is now mainly confined to Annatolia. She has lost much of her territory in Europe and has had to surrender large sections of her Asiatic empire out of which has been carved the states of Syria, Mesopotamia (now the Emirate of Irad), Palestine, and the Hedjaz.

BELGIUM, though one of the greatest sufferers of the war, has shown remarkable powers of recuperation, having made great progress in the restoration of her industries.

BULGARIA lost considerable territory and much prestige by her unfortunate alliance with Germany.

Spain, Portugal, Switzerland, Holland, Denmark, Norway and Sweden, though neutral, were greatly affected by the World War, but are now returning to normalcy.

Pronouncing Vocabulary of French and other War Names

Abattoires, les (*laiz ah-ba-twahrr*)
Acheux (*ah-shuh*)
Acy (*ah-sy*)
Afrique (*afreek*)
Aigny (*ain-yee*)
Aisne (*ain*)
Agincourt (*ah-zhyn-koor*)
Albert (*ahl-bair*)
Alincourt (*ah-lan-koor*)
Allemagne (*al-miñe*)
Ambonnay (*om-bon-nay*)
Ambrief (*om-bree*)
Amérique (*amayreek*)
Amiens (*ah-me-ang*)
Ancienville (*on-se-on-veel*)
Ancre (*ank'r*)
Angleterre (*ong-ler-tair*)
Antilly (*ahn-tee*)
Arcy (*ar-see*)
Ardennes (*arr-denn*)
Argonne (*är' gŭn*)
Armentières (*arrmonh-tee-air*)
Arras (*ar-rar*)
Artois (*ar-twah*)
Arvillers (*ar-vil-lair*)
Assainvillers (*as-sain-vil-lair*)
Athis (*ah-tee*)
Aure (*ore*)
Auteuil (*o-tur-yee*)
Autriche (*o-treesch*)
Avaçon (*ah-vah-song*)
Avesnes (*ah-vain*)
Avize (*ah-veez*)
Ay (*I*)
Azy (*ah-zee*)
Baltique (*bal-teek*)
Bapaume (*bapp-ôme*)
Basel (*baz-zy*) (Flemish)
Bastille, la (*lah-bah-stee-y'*)
Batignolles (*bah-teen-yohll*) ..
Baume (*bome*)
Bazentin (*bazzonhtinh*)
Beaucourt (*bō-koor*)
Beaumont (*bo-monh*)
Beaune (*bone*)
Bellot (*bel-lo*)
Belgique (*bell-zheek*)
Besançon (*bay-zahn-song*)
Béthune (*bay-tune*)
Bezonvaux (*bezzonh-vō*)
Billy (*bee*)
Blanzy (*blahn-zee*)
Bligny (*bleen-yee*)
Bois de Boulogne (*bzwah d boo-lohn-y'*)
Boisselle (*bzwar-sell*)
Bon Marché (*bohn mahrr-shë*)
Bouchoir (*boo-shwah*)
Bouffioulx (*boof-fee-oo*)
Bouillon (*boo-yong*)
Boulevard Montmartre (*bool-vahrrd mohn-mahrr-tr*)
Boulogne (*boo-lone*)
Bourgoin (*boor-gwon*)
Bourgogne (*boor-gone*)
Bourre (*boor*)
Bourse, la (*lah boorrss*)
Braila (*brä-e'lä*)
Bray (*bray*)
Brenne (*brenn*)
Bretagne (*brett-iñe*)
Brie (*bree*)
Brienne (*bree-enn*)
Bruges (*bruzh*)
Bruyères (*bru-yair*)
Bruz (*bruze*)
Bucharest (*boo-ka-rest'*)
Bucquoy (*bu-kwah*)
Buttes Chaumont (*bütt — sho-mohn*)
Buzancy (*bu-zahn-see*)
Caix (*cay*)
Cambrai (*komhbray*)
Cettinje (*chet-teen' ya*)
Chambrette (*shombrett*)
Champs Elysées, les (*lae shonz ailee-zë*)
Champs de Mars, le (*le shon de mahrr*)
Chantelle (*shan-tell*)
Chantenay (*shan-tay-nay*)
Chantilly (*shan-tee-yee*)
Charleroy (*sharler-rzwar*)
Charleville (*shar-luh-veel*)
Château - Thierry (*sha-to-tee-air-ree*)
Châteauroux (*sha-to-roo*)
Châtel (*shah-tel*)
Chaudefontaine (*shoad-fon-tain*)
Chaulnes (*shone*)
Clemenceau (*kla' man' sō*), Georges
Coligny (*ko-leen-yee*)
Colonne Vendôme, la (*lah col-lon von-dohm*)
Combles (*combl*)
Commercy (*kom-mehr-see*)
Compiègne (*kom-pee-ain*)
Condé (*kon-day*)
Congy (*kon-zhee*)
Consenvoye (*kon-son-vzwah*)
Corbie (*cor-bee*)
Cornet-Malo (*cor-nay-mah-lo*)
Courcelette (*koorsellett*)
Craonne (*krah-on*)
Crécy (*kray-see*)
Czechs (*cheks*)
Czernowitz (*cher' no-vits*)
Danemark, m. (*dannemark*)
Dardanelles (*dar-dä-nelz'*)
Delville (*dellveel*)
Dixmude (*dis-* or *de' müd*)
Dijon (*dee-zhon*)
Dobrudja (*dō-broo' jä*)
Dompierre (*dom-pee-air*)
Dompremy (*dom-pray-mee*)
Douai (*doo-ay*)
Doullens (*dool-long*)
Douvres (*doovr*)
Dunajec (*doon-ä-yet*)
Ecosse (*aykoss*)
Egypte (*ayzheept*)
l'Elysée (*lellee-zë*)
Epernay (*ay-pair-nay*)
Epinal (*ay-pee-nal*)
Espagne (*Esspiñe*)
l'Esplanade des Invalides (*lais-plah-nahd — daizan-vah-leed*)
l'Exposition (*laix-pozee-seeohn*)
Fismette (*fee-met*)
Flandre (*flonhdr*)
Flers (*flare*)
Foch (*fosh*), Ferdinand
Fontainebleau (*fohn-tain-blo*)
Fontenay (*fonhternay*)
Fresnes (*frayne*)
Fricourt (*freekoor*)
Froide Terre (*frzward taire*)
Gallipoli (*gal-lip' o-le*)
Gare du Nord, la (*lah gahrr — dü norr*)
Gironville (*zhee-ron-veel*)
Givet (*zhee-vay*)
Givry (*zhee-vree*)
Gobelins (*gohb-lan*)
Gommecourt (*gommkoor*)
Grammont (*gram-mon*)
Grèce (*grayce*)
Grevillers (*grervee-yay*)
Guignols (*ghee-nyohl*)
Guillemont (*guee-er-monh*)
Guise (*geez*)
Gumbinnen (*goom-bin' nen*)
Ham (*hahm*)
Hamel (*ammel*)
Haramont (*ar-rah-mon*)
Hardecourt (*ard'-koor*)
Haudromont (*odro-monh*)
Hautevesnes (*ote-vain*)
Herpont (*ehr-pon*)
l'Hippodrome (*leepo-drohm*)
Hongrie (*ongree*)
l'Hôtel de Ville (*lo-tell de veell*)
Hurlus (*ur-lu*)
Invalides, les (*laizan-vah-leed*)
Irlande (*eer-lonhdd*)
Irles (*eerles*)
Isle-sur-Suippes (*Y - leh - sur - sweep*)

Isonzo (*e-zon' zo*)
Italie (*eetallee*)
Ivors (*y-vore*)
Jalons (*zhah-lon*)
Janvry (*zhahn-vree*)
Jardin des Tuileries (*zharr-dan—dae tüeel-ree*)
Jaulgonne (*zho-gon*)
Joffre (*zho' fr*)
La Bassee (*lä-bas-sa'*)
Laon (*lah-on*)
Langres (*lon-gr*)
Lassigny (*lah-seen-yee*)
Le Câtelet (*luh-kat-lay*)
Le Fretoy (*luh fret-twah*)
Lens (*lons*)
Le Quesnel (*luh kes-ne*)
Le Sars (*ler sarr*)
Le Tronquoy (*luh tron-kwah*)
Leuze, (Wood) (*leurze*)
Liège (*lee-ayzh*)
Ligny (*leeñee*)
Lille (*leel*)
Longchamps (*lohn-shon*)
Longwy (*long-vee*)
Louers (*loo-ay*)
Louvain (*loo-vane*)
Louveigné (*loo-veen-yay*)
Louvemont (*loovmonh*)
Louvre, le (*le loovr*)
Luxembourg, le (*le lüx-on-boorrg*)
Lys (*leese*)
Madeleine, la (*lah mahd-lain*)
Magasin du Louvre (*mahga-zan—dü Loovr*)
Mailly (*may-ye*)
Malines (*mah-leen*)
La Manche (*lar monhsh*)
Maricourt (*marreekoor*)
Marne (*marrn*)
Marseilles (*mar-say-yuh*)
Maubeuge (*mo-buzh'*)
Meaux (*mo*)
Mer du Nord (*mair dü norr*)
Merville (*mair-veel*)
Messines (*mes-seen'*)
Meuse (*murze*)
Mézières (*may-zee-air*)
Miraumont (*meer-o-monh*)
Mlawa (*m'la'vä*)
Monastir (*mo-nas-teer'*)
Mons (*mons*)
Montdidier (*mong-dee-de-ay*)
Montmirail (*mon-mee-ri-ee*)
Montauban (*monht-o-bonh*)
Montmédy (*monh-maydee*)
Moreuil (*mo-ruy-yee*)
Morlancourt (*mor-long-koor*)
Morthomme (*morrt-omm*)
Mouilly (*moo-yee*)
Mouquet (*moo-kay*)
Mouron (*moo-ron*)
Muizon (*mwe-zon*)
Muret (*mu-ray*)
Musée du Louvre (*mü-zë dü loovr*)
Musée du Luxembourg (*mü-zë dü lüx-on-boorrg*)
Musée Grévin (*mü-zë grë-van*)
Nancy (*nahn-see*)
Nanteuil (*nahn-tuh-ee*)
Nesle (*nail*)
Neufchâteau (*nuh-sha-to*)
Neuve Chapelle (*nuv-chä-pel'*)
Nivelles (*nee-vell*)
Nomeny (*no-may-nee*)
Nord (*norr*)
Normandie (*norr-mohn-dee*)
Norvège (*nor-vayze*)
Notre-Dame (*noh-tr dahm*)
Noyon (*nwah-yon*)
l'Obélisque (*lobai-leesk*)
Oeuilly (*uh-ee*)
Oise (*warze*)
l'Opèra (*loppai-rah*)
Ourcq (*oork*)
Ourthe (*oort*)
Palais de l'Iustrie (*pallai—de lan-düs-tree*)
Palais Royal (*pallai—rwah-yal*)
Panthéon, le (*le pon-tai-ohn*)
Pargny (*parn-yee*)
Paris (*parr-ee*)
Passy (*pahssee*)
Père la Chaise (*pairr lah shaez*)
Péronne (*payronn*)
Petit-Croix (*pet-tee-krwah*)
Petit-Morin (*pet-tee-mo-ran*)
Pierrepont (*peairr-ponh*)
Place de la Bastille (*plahss—de la bah-stee-y'*)
Place Vendôme (*plahss von-dohm*)
Plessier (*pless-see-ay*)
Poincaré (*pwan'kä-ra'*)
Pologne (*poll-oyñe*)
Pont-à-Mousson (*pon-ta-moo-son*)
Pont des Invalides (*pohn—dae zan-vah-leed*)
Pont Neuf (*pohn nœf* [*nerf*])
Popincourt (*poppan-coorr*)
Port Saint-Denis (*porrt — san den-nee*)
Port Saint-Martin (*porrt—san marr-tan*)
Pozières (*põz-iair*)
Priez (*pree-eh*)
Przemysl (*pzhem'is'l*)
Quai d'Orsay (*kae dorr-say*)
Quai Voltaire (*kae vohl-tairr*)
Quatre-Bras (*kat'r-brah*)
Ramillies (*rah-mee-yee*)
Rensart (*ronhsarr*)
Reuilly (*rœ-ee-yee*)
Revigny (*rev-veen-yee*)
Rheims, or Reims (*ranhz*)
Roisel (*rwah-zel*)
Romilly (*ro-mee-yee*)
Roubaix (*roo-bay*)
Roye (*rwah*)
Rozainvillers (*ro-zain-vil-lair*)
Rozières (*ro-zee-air*)
Rouen (*roo-anh*)
Russie (*rüss-ee*)
Russy (*ru-sy*)
Sacy (*sah-see*)
St. Blaise (*san-blaze*)
Ste. Cécile (*sant-say-seel*)
Saint Cloud (*san cloo*)
Saint Germain (*san — zhairr-man*)
Sainte Menehoud (*sanht may-noo*)
St. Mihiel (*sanh mee-yel*)
St. Pol (*sang-pol*)
St. Quentin (*san-kon-tan*)
Saint Sulpice (*san—sül-peess*)
Salon, le (*le sah-lohn*)
Sars, le (*sarr*)
Sault-St. Remy (*so-san-ray-mee*)
Save (Fr. *säv;* Ger. *za' veh*)
Savigny (*sah-veen-yee*)
Sedan (*seh-don*)
Seine (*sayne*)
Serbie (*sairbee*)
Sèvres (*sae-vr*)
Sézanne (*say-zan*)
Soissons (*swah-son*)
Somme (*som*)
Sonilly (*son-ee-yee*)
Sonplets (*son-play*)
Sorbonne, la (*lah sorr-bohnn*)
Tagliamento (*tal-yä-men'to*)
Tagnon (*tan-yon*)
Termes (*term*)
Thiaumont (*tee'õ-mong*)
Thiepval (*teepvall*)
Tirlemont (*teerl-mon*)
Tongres (*tong'r*)
Tournai (*toor-nay*)
Tournant (*toor-nahn*)
Trèves (*trayv*)
Trieste (*tree-est*)
Trois-Vierges (*trwah-vee-erzh*)
Tuileries, les (*lae tüeel-ree*) ..
Turquie (*türr-kee*)
Unchair (*ung-shair*)
Ussy (*u-see*)
Vadenay (*vah-den-neh*)
Vailly (*va-yee*)
Vaucherauville (*vo-sher-o-veel*)
Vaugirard (*vo-zhee-rahrr*)
Vaux (*väks*)
Verdun (*vair-dunh*)
Versailles (*vair-si-yee*)
Verviers (*vair-vee-ay*)
Vesle (*vail*)
Vincennes (*van-senn*)
Visé (*vee-zay*)
Vosges (*vozh*)
Vregny (*vrayn-yee*)
Ypres (*Eeper*)
Zeebrügge (*za'brueg-ga*)

Summary of the Treaty of Peace

The preamble names as parties of the one part the United States, the British Empire, France, Italy, and Japan, who with Belgium, Poland, and twenty other smaller powers are described as the allied and associated powers, and on the other part Germany.

On the request of the then imperial government an armistice was granted on Nov. 11, 1918, by the allies, in order that a treaty of peace might be concluded, and that the war should be replaced by a firm, just, and durable peace, the plenipotentiaries agreed as follows:

"From the coming into force of the present treaty, the state of war will terminate, and official relations with Germany will be resumed by the allies."

SECTION I.—The covenant of the League of Nations constitutes section 1 of the peace treaty, which places upon the league many specific and general duties. Members will be the signatories of the covenant and others who declare accession without reservation within two months. A new state may be admitted by vote of two-thirds of the assembly. A state may withdraw upon giving two years' notice.

SECTION II.—A permanent secretariat will be established at the seat of the League, Geneva.

Assembly.—Will consist of representatives of the members and will meet at stated intervals. Each member will have one vote, and not more than three representatives.

Council.—Will consist of representatives of the five great allied powers, with representatives of members selected by the assembly, and will meet at least once a year. Each state will have one vote and not more than one representative.

Armaments.—The council will formulate plans for a reduction of armaments, to be revised every ten years.

Preventing of War.—Members are pledged to submit disputes to arbitration, and not to resort to war until three months after the award. The council will establish a permanent court of international justice to determine disputes or to give advisory opinions.

Members resorting to war in disregard of the covenant will be immediately debarred from all intercourse with other members. The council will consider what action can be taken by the league for the protection of the covenants.

Validity of Treaties.—All treaties concluded after the institution of the league will be registered with the secretariat and published.

The covenant abrogates all obligations between members inconsistent with its terms, but nothing in it shall affect the validity of international engagement, such as treaties of arbitration or regional understandings, like the **Monroe Doctrine**, for securing the maintenance of peace.

The Mandatory System.—The tutelage of nations not yet able to stand by themselves will be intrusted to advanced nations who are best fitted to undertake it.

World Labor.—The league members will enleavor to secure and maintain fair conditions of labor for men, women and children in their own countries and other countries, and just treatment of the native inhabitants of territories under their control.

Boundaries of Germany.—Germany cedes to France Alsace-Lorraine, 5,605 square miles; to Belgium two small districts between Luxemburg and Holland, 382 square miles; to Poland the southeastern tip of Silesia, most of Posen, and West Prussia, 27,686 square miles.

She loses sovereignty over the northeasternmost tip of East Prussia, forty square miles north of the river Memel, the international areas about Danzig, 729 square miles, and the basin of the Saar, 738 square miles.

The southeastern third of East Prussia, and the area between East Prussia and the Vistula is to have its nationality determined by popular vote, 5,785 square miles, as is to be the case in part of Schleswig, 2,787 square miles.

SECTION III—Belgium.—Germany is to consent to the abrogation of the treaties of 1839, by which Belgium was established as a neutral state, and to agree to any convention with which the allies may determine to replace them; to recognize the full sovereignty of Belgium over the contested territory of Moresnet, the circles of Eupen and Malmedy, the inhabitants of which, within six months, to protest against this change of sovereignty, the final decision to be reserved to the League of Nations.

Luxemburg.—Germany renounces her various treaties and conventions with Luxemburg from Jan. 1, last.

Left Bank of the Rhine.—Germany is forbidden to maintain or construct any fortifications or to maintain armed forces less than fifty kilometers to the east of the Rhine.

Alsace-Lorraine.—The territories ceded to Germany by the treaty of Frankfort are restored to France, with their frontiers as before 1871, to date from the signing of the armistice, and to be free of all public debts. All public and private property of German exsovereigns passes to France without payment or credit, as well as ownership of railroads and rights over concessions of tramways. The Rhine bridges pass to France with the obligation for their upkeep.

The Saar.—As compensation for the destruction of coal mines in northern France, and as payment on account of reparation, Germany cedes to France full ownership of the coal mines of the Saar basin with their subsidiaries, accessories and facilities. The territory will be governed by a commission appointed by the League of Nations consisting of five members.

After fifteen years a plebiscite will be held to ascertain the desires of the population as to continuance under the League of Nations, union with France, or union with Germany; all inhabitants over 20 years resident therein will have the right to vote.

SECTION IV—German-Austria.—Germany recognizes the total independence of German-Austria.

Czecho-Slovakia.—Germany recognizes the entire independence of the Czecho-Slovak state, including the autonomous territory of the Ruthenians south of the Carpathians.

Poland.—Germany cedes to Poland the greater part of Upper Silesia, Posen, and the province of West Prussia on the left bank of the Vistula.

East Prussia.—The southern and eastern frontier is to be fixed by plebiscite, the first in the regency of Allenstein, and the second in the circles of Stuhm and Rosenburg and the parts of the circles of Marienburg and Marienwerder.

In each case German troops and authorities will move out within fifteen days of the peace, and the territories be placed under an international commission of five members. Poland, Germany, and Danzig will assure

suitable railroad communication across German territory on the right bank of the Vistula between Poland and Danzig, and Poland shall grant free passage from East Prussia to Germany.

The northeastern corner of Prussia, about Memel, is to be ceded by Germany to the allies.

Danzig.—Danzig and the district about it is to be constituted into the "free city of Danzig."

Denmark.—The frontier between Germany and Denmark will be fixed by the self-determination of the population. Ten days from the peace Germany shall evacuate the region north of the line from the mouth of the Schlei and along the Eider to the North Sea, south of Tonning; the territory will be administered by a commission of five, the population will vote in three zones, after which a new frontier will be drawn and Germany will renounce all sovereignty over Schleswig.

Helgoland.—The islands of Helgoland and Dune shall have all fortifications and harbors destroyed.

Russia.—Germany agrees to abrogate the Brest-Litovsk and other treaties, to recognize all treaties entered into by the allies with states which were a part of the former Russian empire.

SECTION V.—Outside Europe, Germany renounces all rights, titles, and privileges as to her own or her allies' territories to the allies, and accepts whatever measures are taken by the allies in relation thereto.

Germany renounces in favor of the allies her colonies and overseas possessions.

China.—Germany renounces in favor of China all privileges and indemnities resulting from the Boxer protocol of 1901, except Kiau Chau, and agrees to return to China all the astronomical instruments seized in 1901. Germany accepts the abrogation of concessions at Hankow and Tientsin, China agreeing to open them to international use. She renounces in favor of Great Britain her property at Canton, and of France and China jointly, the German school at Shanghai.

Siam.—Germany abrogates all agreements with Siam made before July 22, 1917.

Liberia.—Germany renounces all rights under the international arrangements of 1911 and 1912 regarding Liberia.

Morocco.—Germany renounces all her rights, titles, and privileges under the act of Algeciras and the Franco-German agreements of 1909 and 1911.

Egypt.—Germany recognizes the British protectorate over Egypt, and renounces the capitulation, and all the treaties concluded by her with Egypt; consents also to the transfer to Great Britain of free navigation of the Suez Canal.

Turkey and Bulgaria.—Germany accepts all arrangements which the allies make with Turkey and Bulgaria.

Shantung.—Germany renounces, in favor of Japan, all rights, titles, and privileges, notably as to Kiau Chau and the railroads, mines, and cables acquired by her treaty with China of March 6, 1897, and of all other agreements as to Shantung.

SECTION VI—Military Forces.—The demobilization of the German army must take place within two months of the peace. Its strength may not exceed 100,000, including 4,000 officers, with not over seven divisions of infantry, and three of cavalry, to be devoted exclusively to maintenance of internal order and control of frontiers. Divisions may not be grouped under more than two army corps headquarters staffs.

Armaments.—All establishments for manufacturing or storage of arms and munitions of war must be closed within three months of the peace. The manufacture or importation of all kinds of gases and all analogous liquids is forbidden. Germany may not manufacture such materials for foreign governments.

Conscription.—Conscription is abolished in Germany. The enlisted personnel must be maintained by voluntary enlistments for terms of twelve consecutive years. Officers remaining in the service must agree to serve to the age of 45 years, and newly appointed officers must agree to serve actively for twenty-five years.

Fortresses.—All forts and field works situated in German territory within a zone fifty kilometers east of the Rhine will be dismantled within three months. The fortified works on the southern and eastern frontiers may remain.

Control.—Interallied Commissions of control will see to the execution of the provisions; they may establish headquarters at the German seat of government and go to any part of Germany. She must give them complete facilities, pay their expenses, and also the expenses of execution of the treaty.

Naval.—The German navy must be demobilized within a period of two months after the peace. She will be allowed six small battleships, six light cruisers, twelve destroyers, twelve torpedo boats, and no submarines, either military or commercial, with a personnel of 15,000 men, including officers and no reserve force of any character.

Only volunteer service is permitted, with a minimum period of twenty-five years service for officers and twelve for men. Mercantile marines will not be permitted any naval training.

All German vessels of war in foreign ports will be surrendered, the final disposition to be decided upon by the allies; all war vessels under construction, including submarines, must be broken up. The largest armored ship Germany will be permitted will be 10,000 tons. She is required to sweep up the mines in the North and Baltic seas. All Baltic fortifications must be demolished; other coast defenses are permitted, but guns must not be increased.

Only commercial wireless messages may be sent during three months after the peace.

Aircraft.—One hundred unarmed seaplanes are to be retained till Oct. 1, to search for submarine mines. No dirigible shall be kept. The entire air personnel is to be demobilized within two months, except for 1,000 officers and men retained till Oct. 1. No aviation grounds or dirigible sheds are to be allowed within 150 kilometers of the Rhine or the eastern or southern frontiers; the manufacture of aircraft or parts is forbidden for six months.

Prisoners of War.—The repatriation of German prisoners and interned civilians is to be carried out at Germany's expense by a mixed commission; Germany is to restore all property belonging to allied prisoners. There is to be a reciprocal exchange of information as to dead prisoners and their graves.

Graves.—Both parties will respect and maintain the graves of soldiers and sailors buried on their territories.

Responsibilities.—The allies publicly arraign William II of Hohenzollern, formerly German emperor, not for an offense against criminal law, but for a supreme offense against international morality and the sanctity of treaties.

The ex-emperor's surrender is to be requested of Holland, and a special tribunal set up composed of one judge from each of

the five great powers, which will fix the punishment it feels should be imposed.

SECTION VII—Reparations.—The allies affirm and Germany accepts the responsibility of herself and her allies for causing all the loss and damage to which the allies have been subjected as a consequence of the war imposed upon them by the aggression of Germany and her allies. The allies require her to make compensation for all damages caused to civilians.

Germany further binds herself to repay all sums borrowed by Belgium from her allies up to Nov. 11, 1918, handing over to the reparation commission 5 per cent gold bonds falling due in 1926. The total obligations of Germany to pay is to be determined and notified to her not later than May 1, 1921, by an interallied commission, and a schedule of payments to discharge the obligation within thirty years shall be presented.

Germany shall pay within two years $5,000,000,000 with the understanding that certain expenses, such as those of the armies of occupation and payments for food and raw materials, may be deducted at the discretion of the allies.

Bond issues are to be required of Germany in acknowledgment of its debt as follows: $5,000,000,000 payable not later than May 1, 1921, without interest; $10,000,000,000, bearing 2½ per cent interest between 1921 and 1926, and thereafter 5 per cent, with a 1 per cent siking fund payment beginning in 1926, and an additional amount of $10,000,000,000, bearing interest at 5 per cent.

Shipping.—Germany agrees to cede all merchant ships of 1,600 tons gross and upward; one-half of her ships between 1,000 and 1,600 tons gross, one-quarter of her steam trawlers and one-quarter other fishing boats, to be delivered within two months to the reparation commission, and further agrees to build merchant ships not exceeding 200,000 tons gross annually during the next five years.

All ships used for inland navigation taken by Germany from the allies are to be restored within two months.

SECTION VIII—Devastated Areas.—Germany undertakes to devote her economic resources directly to the physical restoration of the invaded areas.

Coal, etc.—Germany is to deliver specified amounts of annual production to France, Belgium, and to Italy at prices to be fixed as prescribed in the treaty. Provision is also made for delivery to France annually for three years 35,000 tons of benzol, 50,000 tons of coal tar, and 30,000 tons of sulphate of ammonia.

Dyestuffs.—Germany is to give option on dyestuffs and chemical drugs and quinine, at prices fixed by the reparation commission.

Cables.—Germany renounces all title to specified cables, which will be credited to her against reparation indebtedness.

Special Provisions.—Germany is to furnish to the University of Lovain manuscripts, early printed books, maps, etc., to be equivalent to those destroyed of the Library of Louvain. In addition, Germany is to deliver to Belgium other noted works of art.

Germany is to restore within six months the Koran of the Caliph Othman, formerly at Medina, to the king of Hejaz, and the skull of the Sultan Mkwawa, formerly in German East Africa, to his Britannic majesty's government.

SECTION IX—Finance.—Powers to which German territory is ceded will assume a certain portion of the German pre-war debt. In view, however, of the special circumstances under which Alsace-Lorraine was separated from France in 1871, when Germany refused to accept any part of the French public debt, France will not assume any part of Germany's pre-war debt there, nor will Poland share in certain German debts incurred for the oppression of Poland.

Mandatory powers will not assume any German debts or give any credit for German government property.

Germany is required to pay cost of armies of occupation, this cost to be a first charge on her resources. The cost of reparation is the next charge. She is to deliver all sums deposited in Germany by Turkey and Austria-Hungary, and to transfer to the allies all claims against Austria-Hungary, Bulgaria, or Turkey in connection with agreements made during the war.

Germany confirms the renunciation of the treaties of Bucharest and Brest-Litovsk.

SECTION X—Customs.—For six months Germany shall impose no tariff duties higher than the lowest in force in 1914, and for specified products or articles this restriction obtains for two and a half years, or for five years unless further extended by the League of Nations.

Shipping.—Ships of the allies shall for five years enjoy the same rights in German ports as German vessels.

Unfair Competition.—Germany is to give the trade of the allies adequate safeguards against unfair competition.

Treatment of Nationals.—Germany shall impose no exceptional taxes or restriction upon the nationals of the allies for five years.

Conventions.—Forty multilateral conventions are renewed between Germany and the allies, with several exceptions.

Great Britain and the United States, as to article 3 of the Samoan treaty of 1899, are relieved of all obligation toward Germany.

Each state of the allies may renew any treaty with Germany consistent with the peace treaty by giving notice within six months. Treaties entered into by Germany since Aug. 1, 1914, with other enemy states are annulled.

Pre-War Debts.—A system of clearing houses is to be created within three months, one in Germany and one in each allied state, for the payment of pre-war debts, and for the adjustment of the proceeds of the liquidation of enemy property and other obligation.

Enemy Property.—Germany shall restore or pay for all private enemy property damaged by her, the damages to be fixed by the mixed arbitral tribunal. The allies may liquidate German private property within their territories as compensation for property of their nationals not restored or paid for by Germany, for debts, and for other claims against Germany.

Contracts.—Pre-war contracts between allied nationals excepting the United States, Japan and Brazil, and German nationals are cancelled. Mixed arbitral tribunals shall have jurisdiction over all disputes as to contracts concluded before the present peace treaty.

Fire insurance contracts are not considered dissolved by the war, but lapse at the date of the first annual premium falling due three months after the peace.

Life insurance contracts may be restored by payments of accumulated premiums with interest, sums falling due on such contracts during the war to be recoverable with interest. Marine insurance contracts are dissolved by the outbreak of war.

Any allied power, however, may cancel all the contracts running between its nationals and a German life insurance company.

Industrial Property.—Rights as to industrial, literary, and artistic property are reestablished, the special war measures of the allies are ratified, and the right reserved to impose conditions on the use of German pat-

ents and copyrights when in the public interest. Pre-war licenses and rights to sue for infringements committed during the war are cancelled, except as between the United States and Germany.

Opium.—The contracting powers agree to bring the opium convention of Jan. 23, 1912, into force by enacting within twelve months of the peace the necessary legislation.

Religious Missions.—The allies agree that religious missions in territories belonging or ceded to them shall continue under control of the powers, Germany renouncing all claims in their behalf.

SECTION XI—Aerial Navigation.—Aircraft of the allies shall have liberty of passage over and landing in Germany.

Freedom of Transit.—Germany must grant free transit through her territories by rail or water to persons, goods, ships, carriages, and mails from or to any of the allied powers, without customs or transit duties, undue delays, restrictions or descriminations based on nationality, means of transport, or place of entry or departure.

Free Zones in Ports.—Free zones existing in German ports on Aug. 1, 1914, must be maintained.

SECTION XII—International Rivers.—The Elbe from the junction of the Voltava, the Voltava from Prague, the Oder from Oppa, the Niemen from Grodno, and the Danube from Ulm are declared international, together with their connections.

The Danube.—The European Danube commission reassumes its pre-war powers, for the time being, with representatives of only Great Britain, Italy, and Roumania. The upper Danube is to be administered by a new international commission.

Rhine and Moselle.—The Rhine is placed under the central commission. Germany must give France all rights to take water to feed canals on the course of the Rhine between the two extreme points of her frontier.

Belgium is to be permitted to build a deep draft Rhine-Meuse canal within twenty-five years.

Germany must cede to the allies certain tugs, vessels, and facilities for navigation on all these rivers.

Railways.—Germany agrees to co-operate in the establishment of through ticket services for passengers and baggage; to ensure communication by rail between the allied and other states; to allow the construction or improvement within twenty-five years of such lines as are necessary.

Czecho-Slovakia.—To assure Czecho-Slovakia access to the sea, special rights are given her. Towards the Adriatic, she is permitted to run her own through trains to Fiume and Trieste. To the north, Germany is to lease her spaces in Hamburg and Stettin.

The Kiel Canal.—Is to remain free and open to war and merchant ships of all nations at peace with Germany.

SECTION XIII—Aid for Labor.—Members of the League of Nations agree to establish a permanent organization to promote international adjustment of labor conditions, to consist of an annual international labor conference; an international labor office, to be locatd at the seat of the League of Nations, as part of its organization. It is to collect and distribute information on labor throughout the world.

SECTION XIV—Guarantees.—German territory west of the Rhine, together with the bridgeheads, will be occupied by allied troops for fifteen years.

If the conditions are faithfully carried out by Germany certain districts will be evacuated at the end of five years, other districts at the end of ten years, and the remainder, after fifteen years.

Eastern Europe.—All German troops at present in territories to the east of the new frontier shall return as soon as the allies deem wise.

SECTION XV—Miscellaneous.—Germany agrees to recognize the treaties of peace to be concluded by the allies with the powers allied with Germany; to agree to the decisions to be taken as to the territories of Austria-Hungary, Bulgaria, and Turkey, and to recognize the new states in the frontiers to be fixed for them.